

**CITY OF NEWTON
PURCHASING DEPARTMENT**

PROJECT FOR PUBLIC BUILDINGS DEPARTMENT

**PROJECT MANUAL:
ELECTRICAL RENOVATION PROJECT
(Newton 5 Schools - Gath Pool Electrical Renovations)
*INVITATION FOR BID #13-07***

Pre-Bid Meeting: July 19, 2012 at 11:30 a.m.

Bid Opening Date: July 26, 2012 at 11:30 a.m.

Plans and Specifications

Prepared by

Richard D. Kimball Company, Inc.

Contact: Wade Wright (978) 296-6228

JULY 2012

Setti D. Warren, Mayor

CITY OF NEWTON, MASSACHUSETTS

PURCHASING DEPARTMENT

purchasing@newtonma.gov

Fax (617) 796-1227

July 23, 2012

ADDENDUM #1

INVITATION FOR BID #13-07

ELECTRICAL RENOVATION PROJECT NEWTON 5 SCHOOLS & GATH POOL

THIS ADDENDUM IS TO: **Answer the Following Questions and Correct Original Bid Document Drawing Listing to Read:**

Specification Section 01000-3 Paragraph 01011 – CONTRACT INCLUDES (LIST OF DRAWINGS)

GEO.0 GATH POOL ELECTRICAL LEGEND, NOTES & ABBREVIATIONS

GE3.1 GATH POOL ELECTRICAL POWER FIRST FLOOR PLAN

GE8.0 GATH POOL ELECTRICAL DETAILS

GE9.0 GATH POOL ELECTRICAL SCHEDULE

Q1. Is it acceptable to submit our DACAM update statement in lieu of filling out page 12 of the general bid form?

A1. No, both the DCAM update statement and page 12 of the general bid form must be submitted.

Q2. Also is it necessary to list all of our ongoing projects with completion dates? This task would need several attached pages and would be extremely time consuming.

A2. In accordance with page 5 of the contract, you must list all contracts currently on hand, showing contract amount, and anticipated date of completion. We need this information to ensure that the contractor has the ability to take on this project. We do not need great detail, and we are interested in those contracts that are in construction, but not substantially complete.

Q3 Drawing RE3.0: Electrical first floor new work part plan: "New 30kw natural gas generator"... refers to see note #10. There is no note #10. Please advise.

A3. "SEE NOTE 10" shall be removed from drawing RE3.0.

Q4. Drawing RE3.0: Please provide a detail for 4" thick cement generator pad. (rebar size, anchoring to existing concrete floor)

A4. Refer to attached sketch SKE-1, attached.

Q5. Please provide location of generator annunciators for Bigelow and Burr Schools.

A5. Locate generator annunciators for Bigelow and Burr adjacent to the fire alarm control panel at main entrance of each building.

Q6. Drawing SE3.0: Electrical Basement Floor Demolition Work: Please clarify note “contractor shall field verify that existing equipment is in proper working order” Please be more specific, cannot quantify.

A6. Contractor shall test/examine existing (4)60A Disconnects, (2)60A starters and (2) contacts to verify condition of equipment and shall report findings to owner.

Q7. Countryside Elementary Panel “L2” floor plans call for feed-thru lugs, panel schedule on drawing CE0.0 does not reference feed thru lug. Please advise.

A7. Do not provide feed-thru lugs for Panel "L2".

Q8. Franklin School Panels “A-2” and “B-2” floor plans call for feed-thru lugs, panel schedule on drawing FE9.0 does not reference feed thru lug. Please advise.

A8. Do not provide feed-thru lugs for Panels "A-2" and "B-2".

Q9. Gath Pool Panel “P1” floor plans call for NEMA 4X panel, panel schedule on drawing GE9.0 does not reference NEMA 4X requirements. Please advise.

A9. Refer to Table 110.28 in NEC 2011 Handbook.

Q10. Would you please provide a contract term?

A10. Anticipated start date is August 1, 2012 with the completion date of approximately March 1, 2013.

Q11. What are the hours of operation?

A11. The hours of operation will be 3pm to 11pm for all locations. Unrestricted work from 7am to 3pm is allowed until 9/3/12 at all locations. After 9/3/12, work between 7am and 3pm is unrestricted in mechanical and electrical rooms. Work in common areas that does not include noisy evolutions will be allowed, but a schedule of this activity must be provided and accepted by the owner. Our intention is to make this schedule as flexible as possible, while not significantly impacting the learning environment of the schools. The elementary schools get out at Noon on Tuesdays during the school year.

Q12. I wanted to inquire about the disposition of electrical equipment to be removed from the buildings in the 13-07 project. We buy used switchgear and panel boards depending on condition and capacity. Sometimes there is more equipment associated with upgrades that we would be willing to purchase. We are a green asset recovery company that specializes in buying used commercial electrical and hvac equipment for reuse and recycling. Basically we buy used generators, transformers, switchgear, breakers, cooling towers, chillers, A/C units and even equipment from datacenters. Would there be an opportunity to recover assets for reuse?

A12. The owner has no desire to retain any of the items removed as part of this project. The method of disposition of these items is up to the discretion of the contractor.

Q13. The specs do not include the paperwork for the MBE/WBE forms – can we assume that these forms are not required at this time and that on page 9 of the General bid that the last paragraph covers this issue until the contract has been awarded?

“The undersigned further certifies that s/he intends to comply with a the City of Newton Minority/Women Business Enterprise Plan, Dated December 19, 1999 to further expand business opportunities for Minority firms.”

A13. The City Of Newton encourages contractors to comply with the MBE/WBE plan, but it is not mandatory, nor is it a prerequisite of the bid. The above paragraph, located on page 9 of the general bid, does cover this plan, but signing the contract only means that best efforts will be made.

Other Remarks/Comments:

Existing Generator Pad located at Burr school shall be removed and surface area shall be made flush with existing floor.

All other terms and conditions of this bid remain unchanged.

PLEASE ENSURE THAT YOU ACKNOWLEDGE THIS ADDENDUM ON YOUR BID FORM.

Thank you.

Purchasing Department

CITY OF NEWTON

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Newton 5 Schools - Gath Pool

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PLANS MAY BE OBTAINED AT THE PURCHASING DEPT.

Please call for availability at 617-796-1220.

**CITY OF NEWTON
PURCHASING DEPARTMENT
INVITATION FOR BID**

The City of Newton invites sealed bids from Contractors for

**ELECTRICAL RENOVATION PROJECT
Newton 5 Schools and Gath Pool**

Pre-bid will be held at: **11:30 a.m., July 19, 2012 at 42 Vernon Street, Newton. MA**

Bids will be received until **11:30 a.m., July 26, 2012**

at the Purchasing Department, Room 204, Newton City Hall, 1000 Commonwealth Ave., Newton, MA 02459. Immediately following the deadline for bids all bids received within the time specified will be publicly opened and read aloud.

Contract Documents will be available on line at: www.newtonma.gov/bids or for pickup at Newton City Hall, Room 204 after: **10:00 a.m., July 12, 2012.** There will be no charge for contract documents.

All General Bids must be accompanied by a copy of a "Certificate of Eligibility" (DCAM Form CQ-7) issued by the Department of Capital Asset Management and Maintenance (DCAM) and a "Contractor Update Statement" (DCAM Form CQ-3). **The category of work for which the Bidder must certified is: Electrical.**

All bids must be accompanied by a bid deposit in an amount that is not less than five percent (5%) of the value of the bid, including all add alternates. Bid deposits, payable to the City of Newton, shall be either in the form of a bid bond, or cash, or a certified check, or a treasurer's or cashier's check issued by a responsible bank or trust company.

All bids are subject to the provisions of M.G.L. Chapter 149, Section 44 A-J. **Wages are subject** to minimum wage rates determined by the Massachusetts Department of Labor and Industries pursuant to M.G.L. Chapter 149, Sec. 26 to 27H. The schedule of wage rates applicable to this contract is included in the bidding documents. In addition, the prevailing wage schedule will be updated annually for all public construction projects lasting longer than one (1) year. You will be required to pay the rates set out in any updated prevailing wage schedule. Increases in prevailing wage schedules will not be the basis for change order requests. The successful bidder will be required to provide a Certificate of Insurance demonstrating current coverage of the type and amounts set forth in the Project Manual. The successful bidder will be required to furnish a **Performance and Labor and Materials Payment Bond each in the amount of 100%** of the contract total.

All bids shall be submitted as one ORIGINAL and one COPY.

Bidders attention is directed to the requirements of the City of Newton Supplemental Equal Employment Opportunity, Anti-Discrimination and Affirmative Action Program and also to the Minority/Women Business Enterprise Plan, December 1999, all of which are hereby incorporated into the Contract Documents. In the event of conflict between any of the above listed policies, the stricter policy shall apply.

All City of Newton bids are available on the City's web site, www.newtonma.gov/bids, Invitation for Bid. It is the sole responsibility of the contractor downloading these bids to ensure they have received any and all addenda prior to the bid opening. Addenda's will be available online within the original bid document as well as a separate file. If you download bids from the internet site and would like to make it known that your company has done so, you may fax the Purchasing Dept. (617) 796-1227 with your NAME, ADDRESS, PHONE, FAX AND INVITATION FOR BID NUMBER.

The City of Newton will reject any and all bids when required to do so by the above referenced General Laws. In addition, the City of Newton reserves the right to waive any informalities in any or all bids, or to reject any or all bids (in whole or in part) if it be in the public interest to do so.

CITY OF NEWTON
Maryann LaRosee
Purchasing Department
July 12, 2012

CITY OF NEWTON
DEPARTMENT OF PURCHASING
INSTRUCTIONS TO BIDDERS

ARTICLE 1 - BIDDER'S REPRESENTATION

- 1.1 Each General Bidder (hereinafter called the "Bidder") by making a bid (hereinafter called "bid") represents that:
1. The Bidder has read and understands the Contract Documents and the bid is made in accordance therewith.
 2. The Bidder has visited the site and is familiar with the local conditions under which the Work has to be performed.
- 1.2 Failure to so examine the Contract Documents and site will not relieve any Bidder from any obligation under the bid as submitted.

ARTICLE 2 - REQUEST FOR INTERPRETATION

- 2.1 Bidders shall promptly notify the City of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents, the site, and local conditions.
- 2.2 Bidders requiring clarification or interpretation of the Contract Documents shall make a written request to the *Chief Procurement Officer*, at purchasing@newtonma.gov or via facsimile (617) 796-1227. The City will answer such requests if received Friday, July 20, 2012 at 12:00 noon.
- 2.3 Interpretation, correction, or change in the Contract Documents will be made by Addendum which will become part of the Contract Documents. The City will not be held accountable for any oral instruction.
- 2.4 Addenda will be emailed to every individual or firm on record as having taken a set of Contract Documents.
- 2.5 Copies of addenda will be made available for inspection at the location listed in the Invitation for Bids where Contract Documents are on file, in addition to being available online at www.newtonma.gov/bids.
- 2.6 Bidders or proposers contacting ANY CITY EMPLOYEE regarding an Invitation for Bid (IFB) or a Request for Proposal (RFP), outside of the Purchasing Department, once an IFB or RFP has been released, may be disqualified from the bidding process.
- 2.7 Bidders downloading information off the internet web site are solely responsible for obtaining any addenda prior to the bid opening. If the bidder makes themselves known to the Purchasing Dept., at purchasing@newtonma.gov or via facsimile (617) 796-1227, they shall be placed on the bidder's list. Bidders must provide the Purchasing Dept. with their company's name, street address, city, state, zip, phone, fax, email address and **INVITATION FOR BID #13-07**.

ARTICLE 3 - MBE PARTICIPATION

- 3.1 Notice is hereby given that the Mayor's Affirmative Action Plan for the City of Newton, dated December 1999 is applicable to all construction contracts in excess of \$10,000.00. A copy of this plan is on file at City of Newton Purchasing Department.
- 3.2 Notice is hereby given that the City of Newton Minority/Women Business Enterprise Plan dated December 1999 and the Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program is applicable to all City contracts for goods and services in excess of \$50,000.00. Copies of these plans are incorporated in the bidding documents.

ARTICLE 4 - PREPARATION AND SUBMISSION OF BIDS

- 4.1 Bids shall be submitted on the "Bid Form" as appropriate, furnished by the City.

- 4.2 All entries on the Bid Form shall be made by typewriter or in ink.
- 4.3 Where so indicated on the Bid Form, sums shall be expressed in both words and figures. Where there is a discrepancy between the bid sum expressed in words and the bid sum expressed in figures, the words shall control.
- 4.4 Bid Deposits shall be submitted in the amount specified in the Invitation for Bids. They shall be made payable to the City of Newton and shall be either in the form of cash, certified check, treasurer's or cashier's check issued by a responsible bank or trust company, or a bid bond issued by a surety licensed to do business in the Commonwealth of Massachusetts; and shall be conditioned upon the faithful performance by the principal of the agreements contained in the bid.
- Bid deposits of the three (3) lowest responsible and eligible Bidders shall be retained until the execution and delivery of the Owner/Contractor agreement.
- 4.5 The Bid, including the bid deposit shall be enclosed in a sealed envelope with the following plainly marked on the outside:
- * GENERAL BID FOR:
 - * NAME OF PROJECT AND **INVITATION NUMBER**
 - * BIDDER'S NAME, BUSINESS ADDRESS, AND PHONE NUMBER
- 4.6 Date and time for receipt of bids is set forth in the Invitation for Bids.
- Timely delivery of a bid at the location designated shall be the full responsibility of the Bidder.
- Bids shall be submitted with one **original** and one **copy**.

ARTICLE 5 - ALTERNATES

- 5.1 Each Bidder shall acknowledge Alternates (if any) in Section C on the Bid Form.
- 5.2 In the event an Alternate does not involve a change in the amount of the base bid, the Bidder shall so indicated by writing "No Change", or "N/C" or "0" in the space provided for that Alternate.
- 5.3 Bidders shall enter on the Bid Form a single amount for each Alternate which shall consist of the amount for work performed by the Contractor.
- 5.4 The low Bidder will be determined on the basis of the sum of the base bid and the accepted alternates.

ARTICLE 6 - WITHDRAWAL OF BIDS

- 6.1 Any bid may be withdrawn prior to the time designated for receipt of bids on written or telegraphic request. Telegraphic withdrawal of bids must be confirmed over the Bidder's signature by written notice postmarked on or before the date and time set for receipt of bids.
- 6.2 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.
- 6.3 No bids shall be withdrawn within thirty days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids.

ARTICLE 7 - CONTRACT AWARD

- 7.1 The City of Newton will award the contract to the lowest eligible and responsible Bidder within thirty days, Saturdays, Sundays, and legal holidays excluded after the opening of bids.
- 7.2 The City of Newton reserves the right to waive any informalities in or to reject any or all Bids if it be in the public interest to do so.

- 7.3 The City reserves the right to reject any bidder who has failed to pay any local taxes, fees, assessments, betterments, or any other municipal charge, unless the bidder has a pending abatement application or has entered into a payment agreement with the collector-treasurer.
- 7.4 As used herein, the term "lowest responsible and eligible Bidder" shall mean the Bidder (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (3) who, where the provisions of section eight B of chapter twenty-nine apply, shall have been determined to be qualified thereunder.
- 7.5 Subsequent to the award and within five (5) days, Saturday, Sundays and legal holidays excluded, after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the City a Contract in the form included in the Contract Documents in such number of counterparts as the City may require.
- 7.6 In the event that the City receives low bids in identical amount from two or more responsive and responsible Bidders, the City shall select the successful Bidder by a blind selection process such as flipping a coin or drawing names from a hat. The low Bidders who are under consideration will be invited to attend and observe the selection process.

ARTICLE 8 - TAXES

- 8.1 The Bidder shall not include in this bid any tax imposed upon the sale or rental of tangible personal property in this Commonwealth, such as any and all building materials, supplies, services and equipment required to complete the work.
- 8.2 The City is exempt from payment of the Massachusetts Sales Tax, and the Bidder shall not include any sales tax on its bid. The City's exemption Number is E-046-001-404.

END OF SECTION

**CITY OF NEWTON
PURCHASING DEPARTMENT
FORM FOR GENERAL BID #13-07**

**ELECTRICAL RENOVATIONS PROJECT
Newton 5 Schools and Gath Pool**

TO THE AWARDING AUTHORITY:

A. The undersigned proposes to furnish all labor and materials required for electrical improvements at the five (5) Newton schools and Gath Pool in Newton, Massachusetts in accordance with the accompanying plans and specifications prepared by the City of Newton for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

B. This bid includes addenda number(s) _____, _____, _____, _____,

C. The proposed contract price is:

_____ DOLLARS (\$ _____)

For Alternate No. _____ Add \$ _____; Subtract \$ _____

For Alternate No. _____ Add \$ _____; Subtract \$ _____

1. New generators (sized to maintain heating only) and life safety emergency battery units, combination emergency and exit signs, and exit signs at Burr and Bigelow Schools.
2. Upgrade/replace existing panelboards and disconnects at Countryside, Franklin and Spaulding Schools.
3. Upgrade/replace existing electrical service and switchgear at Gath Pool.
4. Upgrade/replace existing panelboards and disconnects at Gath Pool.

COMPANY: _____

The sub-division of the proposed contract price is as follows:

Item 1. The work of the General Contractor, being all work other than that covered by Item 2

Total of Item 1: \$ _____ N/A

Item 2. Sub-bids as follows:

Sub-Trade	Name of Sub-bidder	Amount	Bond Required ? (Yes or No)
_____ N/A	_____ N/A	\$ _____ N/A	_____ N/A

Total of Item 2: \$ _____ N/A

The undersigned agrees that each of the above named sub-bidders will be used for the work indicated at the amount stated, unless a substitution is made. The undersigned further agrees to pay the premiums for the performance and payment bonds furnished by sub-bidders as requested herein and that all of the cost of all such premiums is included in the amount set forth in Item 1 of this bid.

The undersigned agrees that if s/he is selected as general contractor, s/he will promptly confer with the awarding authority on the question of sub-bidders; and that the awarding authority may substitute for any sub-bid listed above a sub-bid filed with the awarding authority by another sub-bidder for the sub-trade against whose standing and ability the undersigned makes no objection; and that the undersigned will use all such finally selected sub-bidders

at the amounts named in their respective sub-bids and be in every way as responsible for them and their work as if they had been originally named in this general bid, the total contract price being adjusted to conform thereto.

- D.** Prompt Payment Discounts. Bidders are encouraged to offer discounts in exchange for an expedited payment. Payments may be issued earlier than the general goal of within 30 days of receipt of the invoice only when in exchange for discounted prices. Discounts will not be considered in determining the lowest responsible bidder.

Prompt Payment Discount _____ % _____ Days

Prompt Payment Discount _____ % _____ Days

Prompt Payment Discount _____ % _____ Days

- E.** The undersigned agrees that, if s/he is selected as general contractor, s/he will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this bid and furnish a performance bond and also a labor and materials or payment bond, each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority and each in the sum of the contract price, the premiums for which are to be paid by the general contractor and are included in the contract price.

The undersigned hereby certifies that s/he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that s/he will comply fully with all laws and regulations applicable to awards made subject to section forty-four A of M.G.L. Chapter 149.

The undersigned further certifies that s/he intends to comply with the City of Newton Minority/Women Business Enterprise Plan, dated December 19, 1999 to further expand business opportunities for minority firms.

THIS SPACE LEFT BLANK INTENTIONALLY

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Date _____

(Name of General Bidder)

BY: _____
(Signature)

(Printed Name and Title of Signatory)

(Business Address)

(City, State Zip)

_____/_____
(Telephone) (FAX)

E-mail address (optional)

NOTE: If the bidder is a corporation, indicate state of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address if different from business address.

END OF SECTION

CITY OF NEWTON

BIDDER'S QUALIFICATIONS AND REFERENCES FORM

All questions must be answered, and the data given must be clear and comprehensive. Please type or print legibly. If necessary, add additional sheet for starred items. This information will be utilized by the City of Newton for purposes of determining bidder responsiveness and responsibility with regard to the requirements and specifications of the Contract.

1. FIRM NAME: _____
2. WHEN ORGANIZED: _____
3. INCORPORATED? ☐ YES ☐ NO DATE AND STATE OF INCORPORATION: _____
4. IS YOUR BUSINESS A **MBE**? ☐ YES ☐ NO **WBE**? ☐ YES ☐ NO or **MWBE**? ☐ YES ☐ NO
- * 5. LIST ALL CONTRACTS CURRENTLY ON HAND, SHOWING CONTRACT AMOUNT AND ANTICIPATED DATE OF COMPLETION:

- * 6. HAVE YOU EVER FAILED TO COMPLETE A CONTRACT AWARDED TO YOU?
☐ YES ☐ NO
IF YES, WHERE AND WHY?

- * 7. HAVE YOU EVER DEFAULTED ON A CONTRACT? ☐ YES ☐ NO
IF YES, PROVIDE DETAILS.

- * 8. LIST YOUR VEHICLES/EQUIPMENT AVAILABLE FOR THIS CONTRACT:

- * 9. IN THE SPACES FOLLOWING, PROVIDE INFORMATION REGARDING CONTRACTS COMPLETED BY YOUR FIRM SIMILAR IN NATURE TO THE PROJECT BEING BID. A MINIMUM OF FOUR (4) CONTRACTS SHALL BE LISTED. PUBLICLY BID CONTRACTS ARE PREFERRED, BUT NOT MANDATORY.

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____

DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____

PUBLICLY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____) _____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____
PUBLCY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____) _____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____
PUBLCY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____) _____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: \$ _____ DATE COMPLETED: _____
PUBLCY BID? _____ YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____) _____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

10. The undersigned certifies that the information contained herein is complete and accurate and hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the City of Newton in verification of the recitals comprising this statement of Bidder's qualifications and experience.

DATE: _____ BIDDER: _____

SIGNATURE: _____

PRINTED NAME: _____ TITLE: _____

END OF SECTION

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word “person” shall mean any natural person, business, partnership, corporation, union, committee club, or other organization, entity, or group or individuals.

(Signature of individual)

Name of Business

CONTRACT FORMS

The forms are provided for informational purposes only.

The awarded bidder will be required to complete and submit the following documents in order to execute a contract pursuant to this bid.

None of the following forms are required at the time of bid submittal.

CITY - CONTRACTOR AGREEMENT

THIS AGREEMENT made this ____ day of _____ in the year Two Thousand and Twelve by and between the CITY OF NEWTON, a municipal corporation organized and existing under the laws of the Commonwealth of Massachusetts, hereinafter referred to as the CITY, acting through its Chief Procurement Officer, but without personal liability to him, and

hereinafter referred to as the CONTRACTOR.

WITNESSETH, that the parties hereto for the consideration hereinafter set forth agree as follows:

ARTICLE 1. STATEMENT OF WORK. The Contractor shall furnish all labor, materials, equipment and insurance, and perform all work required in strict accordance with the Project Manual entitled:

**Electrical Renovation Project
Newton 5 Schools and Gath Pool**

hereinafter referred to as the SPECIFICATIONS, and the Addenda thereto numbered _____, and all the Drawings referred to therein.

The said Specifications, Addenda and Drawings are incorporated herein by reference and are made a part hereof.

ARTICLE 2. TIME OF COMPLETION. The Contractor shall commence work under this Contract on the date specified in the written notice of the City to proceed and shall fully complete all work hereunder within the time stated elsewhere in the contract documents.

ARTICLE 3. THE CONTRACT PRICE. The City shall pay the Contractor pursuant to and in accordance with the provisions set forth in the Contract Documents, subject to additions and deductions in accordance with the terms of the Specifications, for the full and satisfactory performance of **the Contract the sum of:**

ARTICLE 4. CONTRACT DOCUMENTS. The Contract shall consist of the following component parts, copies of which are attached hereto:

- a. The City's Invitation For Bid #13-07 issued by its Purchasing Department;
- b. Project Manual for ELECTRICAL RENOVATION PROJECT at Newton 5 Schools and Gath Pool.
- c. Addenda Numbers ____ to the above referenced Project Manual and/or Plans;
- d. The bid of _____ dated _____ and signed by _____, including the Bid Form and Bidder's Qualifications Form and References;
- e. Attestation/Certification

This Contract Form, together with the other documents enumerated in this Article 4 form the Contract.

ARTICLE 5. ALTERNATES. The following Alternates have been accepted and their costs are included in the Contract Price stated in Article 3 of this Agreement:

Alternates: _____.

ARTICLE 6. APPLICABLE STATUTES. All applicable federal, state and local laws and regulations are incorporated herein by reference and the Contractor agrees to comply with same.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed under seal the day and year first above written.

CONTRACTOR

CITY OF NEWTON

By _____

By _____

Chief Procurement Officer

Print Name _____

Date _____

Title _____

Date _____

By _____

Commissioner of Public Buildings

Affix Corporate Seal Here

Date _____

City funds are available in the following accounts:

35A11501-52407 _____

310E903-5825 _____

310E921-5825 _____

310F905-5825 _____

310F906-5825 _____

310F910-5825 _____

I further certify that the Mayor, or his designee, is authorized to execute contracts and approve change orders.

Approved as to Legal Form and Character

By _____

Associate City Solicitor

Date _____

CONTRACT AND BONDS APPROVED

By _____

Comptroller of Accounts

By _____

Mayor or his designee

Date _____

Date _____

CERTIFICATE OF AUTHORITY - CORPORATE

I hereby certify that I am the Clerk/Secretary of _____
(insert full name of Corporation)

2. corporation, and that _____
(insert the name of officer who signed the **contract and bonds.**)

3. is the duly elected _____
(insert the title of the officer in line 2)

4. of said corporation, and that on _____
(insert a date that is ***ON OR BEFORE*** the date the officer signed the **contract and bonds.**)

at a duly authorized meeting of the Board of Directors of said corporation, at which all the directors were present or waived notice, it was voted that

5. _____ the _____
(insert **name** from line 2) (insert **title** from line 3)

of this corporation be and hereby is authorized to execute contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation's name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

6. ATTEST: _____
(Signature of **Clerk or Secretary**)*

*AFFIX CORPORATE
SEAL HERE*

7. Name: _____
(Please print or type name in line 6)*

8. Date: _____
(insert a date that is ***ON OR AFTER*** the date the officer signed the **contract and bonds.**)

* The name and signature inserted in lines 6 & 7 **must** be that of the **Clerk or Secretary** of the corporation.

ATTESTATION

Pursuant to MG c. 62C, § 49A, the undersigned acting on behalf of the Contractor, certifies under the penalties of perjury that, to the best of the undersign's knowledge and belief, the Contractor is in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.*

**Signature of Individual
or Corporate Contractor (Mandatory)

*** Contractor's Social Security Number
(Voluntary) or Federal Identification Number

By: _____
Corporate Officer
(Mandatory, if applicable)

Date: _____

* The provision in the Attestation relating to child support applies only when the Contractor is an individual.

** Approval of a contract or other agreement will not be granted unless the applicant signs this certification clause.

*** Your social security number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended. This request is made under the authority of GL c. 62C, § 49A.

CITY OF NEWTON, MASSACHUSETTS

PERFORMANCE BOND

Know All Men By These Presents:

That we, _____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the City of Newton as Obligee, in the sum of _____ dollars (\$ _____) to be paid to the Obligee, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Obligee, bearing the date of _____, __, for the construction of _____ in Newton, Massachusetts.
(Project Title)

Now, the condition of this obligation is such that if the PRINCIPAL and all Sub-contractors under said contract shall well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of said contract on its part to be kept and performed during the original term of said contract and any extensions thereof that may be granted by the Obligee, with or without notice to the SURETY, and during the life and any guarantee required under the contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, changes or additions being hereby waived, then this obligation shall become null and void; otherwise, it shall remain in full force, virtue and effect.

In the event, that the contract is abandoned by the PRINCIPAL, or in the event that the Obligee terminates the employment of the PRINCIPAL or the authority of the PRINCIPAL to continue the work said SURETY hereby further agrees that said SURETY shall, if requested in writing by the Obligee, take such action as is necessary to complete said contract.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this _____ day of _____, 20____.

PRINCIPAL

SURETY

BY _____
(SEAL)

BY _____
(ATTORNEY-IN-FACT) (SEAL)

(Title)

ATTEST: _____

ATTEST: _____

CITY OF NEWTON, MASSACHUSETTS

PAYMENT BOND

Know All Men By These Presents:

That we, _____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the City of Newton as Oblige, in the sum of _____ dollars (\$_____) to be paid to the Oblige, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Oblige, bearing the date of _____, for the construction of _____ in Newton, Massachusetts.
(Project Title)

Now, the conditions of this obligation are such that if the PRINCIPAL and all Sub-contractors under said contract shall pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to, provisions of M.G.L. c. 30, sec. 39A, and M.G.L. c. 149 sec. 29, as amended, then this obligation shall become null and void; otherwise it shall remain in full force, virtue and effect.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this _____ day of _____, 20____.

PRINCIPAL

SURETY

BY _____
(SEAL)

BY _____
(ATTORNEY-IN-FACT) (SEAL)

(Title)

ATTEST: _____

ATTEST: _____

CERTIFICATION REGARDING LOCAL TAXES

The undersigned acting on behalf of the Contractor, certifies under the penalties of perjury that, to the best of the undersign's knowledge and belief, the Contractor has paid all local taxes, fees, assessments, betterments, or any other municipal charge, unless the Contractor has a pending abatement application or has entered into a payment agreement with the City of Newton collector-treasurer.

*Signature of Individual
or Corporate Contractor (Mandatory)

** Contractor's Social Security Number
(Voluntary) or Federal Identification
Number

By: _____
Corporate Officer
(Mandatory, if applicable)

Date: _____

* Approval of a contract or other agreement will not be granted unless the applicant signs this certification clause.

** Your social security number will be furnished to the City of Newton Treasurer-Collector to determine whether you have paid all local taxes or fees to the City. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended.

GENERAL CONDITIONS OF THE CONTRACT FOR NON-TECHNICAL SERVICES

The City of Newton, herein referred to as the City, does hereby establish the following General Conditions, applicable to this Invitation for Bids and any subsequent purchase order, work order, work order or contract resulting therefrom.

1.0 SCOPE OF SERVICES

- 1.1 The Contractor agrees to furnish all labor, materials, equipment and insurance necessary to perform and fully complete, in every respect, within the time frame herein specified, all work (hereinafter referred as the Services) described in the Project Manual.
- 1.2 The Contractor shall not make any changes in the scope of Services without the prior written consent of the City. The Contractor shall make reasonable revisions or corrections, within the scope of Services, to any work performed until submitted in a form acceptable to the City.
- 1.3 The City reserves the right to alter, add to or reduce the Services by delivering to the Contractor written notice specifying the nature and extent of such alteration, addition or reduction. Such notice shall be effective upon the later of actual receipt by the Contractor or upon the date given in such notice. No addition to the Services shall be made unless the City and the Contractor have agreed to such increase in writing.

2.0 CONTRACT TERM

- 2.1 The obligations of the Contractor identified herein shall commence upon execution of the City-Contractor Contract and shall continue in full force and effect for the duration of the contract term as identified in the Project Manual. The contractor shall commence the performance of services under this contract promptly upon receipt of the City's Notice to Proceed in accordance with the provisions identified in the Project Manual.
- 2.2 In the event the term of this contract exceeds a period of one year and notwithstanding any provision to the contrary herein, the City shall cancel this contract in the event that funds are not appropriated or otherwise made available to support continuation of performance by the Contractor in any fiscal year succeeding the first year.

3.0 EXECUTION

- 3.1 All work required hereunder shall be performed as promptly as possible, and in any event within the time herein set forth, and such work shall be subject to approval and acceptance by the City, but such approval and acceptance shall not relieve the Contractor from the obligation to correct any incomplete, inaccurate or defective work, all of which shall be promptly remedied by the Contractor on demand, without cost to the City. The Contractor shall obtain all the required licenses and permits for the work herein described.
- 3.2 The Contractor shall conform to all determinations and directions of the City concerning the Contractor's delivery of services in the event of inclement weather, equipment failure, picket lines on City property, or labor strikes by the contractor's employees.

COMPENSATION

- 4.1 The City shall pay the Contractor for services rendered under this contract in accordance with the amount(s) set forth in the Contractor's General Bid Form and pursuant to the provisions contained in the Project Manual.
- 4.2 Notwithstanding anything to the contrary contained in the Contract, the City may withhold any payment to the Contractor hereunder if and for so long as the Contractor fails to perform any of its obligations hereunder or otherwise is in default under this Contract including, without limitation, any failure to perform

Services in full accordance with the amount sufficient in the reasonable opinion of the City to cure any such default or failure of performance by the Contractor.

4.3 In no event shall the City be required to pay any amounts for work deemed by it to be unacceptable, or which are otherwise disputed. In the event the City disputes any such amounts invoiced, it shall pay all amounts not in dispute and notify the Contractor in writing of the amounts disputed and the reasons therefor.

4.4 No payment made shall constitute or be construed as final acceptance or approval of that part of the Services to which payment relates, or relieve the Contractor of any of its obligations outlined in this Contract. Further, the City shall not be deemed, by virtue of making payments to the Contractor hereunder, to have released the Contractor from any claim or liability, or to have waived any action arising out of the breach of this Contract by the Contractor.

5.0 REPORTS AND DRAWINGS

When the Contractor has been paid for the Services performed by him or her, all reports, drawings, and other material furnished to the City shall become the City's property and may be used by the City (or such parties as the City may designate) thereafter in such manner and for such purposes as the City (or such parties as the City may designate) may deem advisable, without further employment of or additional compensation to the Contractor. The Contractor shall not release or disclose any report, drawing, or other material furnished to the Contractor by the City in connection with the performance of the Contractor's Services

6.0 CONTRACTOR'S ACCOUNTING RECORDS

The Contractor shall keep records pertaining to Services performed (including complete and detailed time records) on the basis of recognized bookkeeping practices, generally accepted accounting principles, and in accordance with such reasonable requirements to facilitate audit as the City may provide. All records shall be available to the City or its authorized representatives for review and audit during normal business hours.

7.0 ASSIGNMENT/SUBCONTRACTING

The Contractor agrees that he will not sell, assign or transfer this Contract or any part thereof or interest therein without the prior written consent of the City.

8.0 REMEDY FOR DEFAULT

If the Contractor, in the sole judgment of the City, shall violate or fail properly to comply with or perform in any material respect any condition, provision, or warranty hereof, the City shall have the right by prior written notice to the Contractor to have the services called for hereby otherwise performed, and/or to terminate this contract without prejudice to any other rights or remedies of the City under this contract. The Contractor shall pay any excess in the City's cost to so procure the services and any related goods, supplies, materials or equipment. In addition, and without limiting any other remedies available to the City, the Contractor shall be liable for all losses, costs and expenses incurred by the City which result from the Contractor's noncompliance.

9.0 SUSPENSION OR TERMINATION

9.1 The City shall have the right, upon seven (7) days written notice to the Contractor so stating, to terminate, suspend, or postpone this contract in whole or in part for any reason deemed by the City to be in the public interest. Any such termination, suspension, or postponement shall not give rise to any cause of action for damages against the City. In the event that the City postpones or suspends the Services, the Contractor's time for performance of the Services shall be extended for a period equal to the period of such postponement or suspension. In the event of termination, suspension or postponement, the City shall pay: (a) for services and any related goods, supplies, materials and equipment furnished up to the time of termination, suspension, or postponement at the contract price upon delivery; (b) for work in process in the amount of the Contractor's cost, determined in accordance with ordinary accepted accounting practices, up to the time of termination, suspension, or postponement; and (c) for raw materials purchased by the

Contractor as of the date of termination, suspension, or postponement and which are noncancelable at the Contractor's actual cost plus reasonable handling charges, but only to the extent that such raw materials were purchased in reliance upon this contract and are useful solely with respect to this contract.

- 9.2 Upon receipt of a notice of termination, suspension, or postponement the Contractor shall immediately cease all work hereunder and cancel all orders placed with respect to this contract. The Contractor's failure to so cancel shall relieve the City of the obligations of paragraph 10.1 above.
- 9.3 The City may postpone, suspend or terminate the Services immediately, by notice, hand delivery or certified mail, if the Contractor violates any of the provisions of this Contract, or fails to perform or observe any of the terms, covenants or conditions of this Contract, or abandons in whole or in part its Services, or becomes unable to perform its Services.
- 9.4 In the event of termination of this Contract, the Contractor shall promptly deliver to the City all documents, work papers, calculations, computer programs, data, drawings, plans, and other tangible work product, or materials pertaining to the Services performed under this Contract to the time of termination.

10.0 NOTICE

Any action, notice or request required to be taken, given or made by City or the Contractor hereunder may be taken, given or made only by those persons identified for that purpose on the Contract Form. All notices required to be given hereunder shall be deemed properly given if personally delivered, or if mailed by registered or certified mail, postage prepaid addressed to the address and officer identified on the Contract Form.

11.0 PROTECTION OF PROPERTY

The Contractor shall take all reasonable precautions to prevent damage to property, visible and concealed, and shall restore to substantially the same condition existing prior to the Contractor's entry any disturbance or damage to property caused by the Contractor or any person acting under its control.

12.0 INSURANCE REQUIREMENTS

- 12.1 The Contractor shall provide insurance coverage as listed below. This insurance shall be provided at the Contractor's expense and shall be in full force and effect during the full term of this Contract.

WORKER'S COMPENSATION

Worker's Compensation: Per M.G.L. c.. 149, s. 34 and c.. 152 as amended.

GENERAL LIABILITY

Personal Injury	\$1,000,000 each occurrence \$3,000,000 aggregate
Property Damage	\$1,000,000 each occurrence \$3,000,000 aggregate

VEHICLE LIABILITY

Personal Injury	\$1,000,000 each person \$1,000,000 aggregate
Property Damage	\$1,000,000

- 12.2 **The City shall be named as additional insureds on the Contractor's Liability Policies.**

- 12.3 The Contractor shall not commence the work until proof of compliance with this Section 13.0 has been furnished to the City by submitting one copy of a properly endorsed insurance certificate issued by a company authorized to write insurance in the Commonwealth. This certificate shall indicate that the contractual liability coverage is in force.

- 12.4 The Contractor shall file the original and one certified copy of all policies with the City within fifteen (15) days after contract award. If the City is damaged by the Contractor's failure to maintain such insurance and to so notify the City, then the Contractor shall be responsible for all reasonable costs attributable thereto.
- 12.5 Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and City at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

13.0 CONFLICT OF INTEREST

No member, agent or employee of the City shall , during his/her tenure or one year thereafter directly or indirectly, have any interest in any property to be included in, or any contract for property, materials or services to be furnished or used in connection with, this contract or the proceeds thereof.

14.0 COMPLIANCE WITH LAWS

All work to be performed and wages paid under this specification shall be in accordance with all applicable laws, state or federal, and all applicable ordinances, codes, rules, and regulations of the City of Newton, or any public board or office having any jurisdiction, regulation or control over any work to be done hereunder, including minimum wage rates. In particular, without limitation, the Contractor agrees to comply with all regulations pertaining to approvals for federal and state grants, and with all federal and state environmental laws and regulations. The Contractor agrees to assist in making any submissions to federal or state agencies as may be required in order to meet the requirements in this paragraph.

15.0 INDEMNIFICATION

The Contractor agrees to indemnify and save the City harmless from and against any and all costs, losses, expenses, liabilities, damages or claims for damages, including reasonable attorney's fees and expenses, on account of any injury or damage to buildings, improvements, or property of the City or on account of any injury (including death) or damage to any person, persons, firm, corporation or association, or on account of any infringement or claim of infringement of patents, arising out of or resulting from the deliveries provided for or performed under this contract or from any act, omission or negligence of the contractor, his agents, employees, or assigns. The foregoing provisions shall not be deemed to be released, waived or modified in any respect by reason of any surety or insurance provided by the contractor under contract.

16.0 FORCE MAJEURE

The City may not hold the Contractor liable for any loss, expense or damage incurred by the City on account of failure of the Contractor to deliver services as specified herein, if that failure is caused by state of war, acts of enemies, expropriation or confiscation of facilities used by the Contractor, or compliance with any law, order, or regulation of any federal, state or municipal governmental authority, if the Contractor shall show that such compliance would impair this ability to perform a material provision of this contract, the Contractor having given the City reasonable notice of such cause.

17.0 DISPUTES

All claims, disputes and other matters in question between the City and the Contractor arising out of or relating to this Contract or the breach of it, shall be submitted for resolution to a court of competent jurisdiction in Massachusetts, unless otherwise agreed by the parties. No such action shall be brought, however, until the completion of all Services under this Contract or the earlier termination of this Contract as provided herein, the parties agreeing to negotiate any claims, disputes or other matters in question during the term of this Contract before resorting to litigation. As to all acts or failures to act by either party to this Contract, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events when the other party becomes aware or should have been aware of such acts or failure to act.

18.0 GOVERNING LAW

This contract shall be governed by and construed in accordance with Massachusetts Law.

19.0 LIABILITY

The Contractor is retained solely for the purpose of and to the extent set forth in this Contract. The Contractor's relationship to the City for the purpose of services to be performed under this Contract shall be that of an independent contractor. The Contractor shall have no capacity or authority to involve the City in any contract or to incur any liability on behalf of the City. In no event shall the City be held liable as an employer or otherwise for any personal injury to or death of the Contractor's principals, employees, agents and/or representatives occasioned by or resulting from the Contractor's performance under this Contract.

20.0 LIENS

The Contractor shall cause to be removed from the property of the City any liens or other claims asserted by any person or entity claiming through or under the Contractor and arising out of Services performed under this Contract by such third party.

21.0 SEVERABILITY

In the event that any portion of this Contract is held illegal or unenforceable by a court of competent jurisdiction, the parties agree that such invalidity shall not affect the validity of the remaining portions of this Contract and Contractor and the City agree to substitute for the invalid provision a valid provision which most closely approximates the economics and intent of the invalid provision.

END OF SECTION

**PUBLIC BUILDING MAINTENANCE CONTRACT
SUPPLEMENTAL CONDITIONS
COMMONWEALTH OF MASSACHUSETTS & CITY OF NEWTON**

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SPECIAL CONDITIONS - COMMONWEALTH OF MASSACHUSETTS

Article 1. METHOD OF PAYING SUBCONTRACTORS

(General Laws, Chapter 30, Section 39F as most recently amended by Chapter 450, §76 of the Acts of 1996)

(1.) Every contract awarded pursuant to section forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the materials furnished by the subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(b) Not later than the sixty-fifth day after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for the account of that subcontractor, and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor or which is to be included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this section.

(d) If, within seventy days after the subcontractor has substantially completed the subcontract work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of the balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the subcontractor has substantially completed the subcontract work. Within ten days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.

(e) Within fifteen days after receipt of the demand by the awarding authority, but in no event prior to the seventieth day after substantial completion of the subcontract work, the awarding authority shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided, that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make

further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

(f) The awarding authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the general contractor and the subcontractor in a bank in Massachusetts selected by the awarding authority or agreed upon by the general contractor and the subcontractor and shall notify the general contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the general contractor and the subcontractor or as determined by a decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account for accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the general contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the general contractor to the extent of the such payment.

(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor.

(i) If the subcontractor does not receive payment as provided in subparagraph (a) or if the general contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the subcontractor and the subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (a), the subcontractor may demand direct payment by following the procedure in subparagraph (d) and the general contractor may file a sworn reply as provided in that same subparagraph. A demand made after the first day of the month following that for which the subcontractor performed or furnished the labor and materials for which the subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the general contractor. Thereafter the awarding authority shall proceed as provided in subparagraph (e), (f), (g) and (h).

Article 2. METHOD OF PAYING GENERAL CONTRACTORS

(General Laws, Chapter 30, Section 39K as most recently amended by Chapter 145 of the Acts of 1991 and Chapter 151 of the Acts of 1993.)

Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount is more than five thousand dollars in the case of the commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or other public body, shall contain the following paragraph:--Within fifteen days (forty-five days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, less (1) a retention based on its estimate of the fair value of its claims against the contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and less (3) a retention not exceeding five per cent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one per cent of the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall pay the contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments

to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, or based on the record of payments by the contractor to the subcontractors under this contract if such record of payment indicates that the contractor has not paid subcontractors as provided in section thirty-nine F. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen days (twenty-four days in the case of the commonwealth) after receipt of such a periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven days after receipt, return to the contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub-subtrade listed in sub-bid form as required by specifications and a column listing the amount paid to each subcontractor and sub-subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the architect to the effect that the contractor has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section.

Article 3. CLAIMS FOR UNFORESEEN CONDITIONS

(General Laws, Chapter 30, Section 39N as most recently amended by Chapter 774 of the Acts of 1972)

Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an awarding authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

If, during the progress of the work, the contractor or the awarding authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

Article 4. CLAIMS FOR DELAY

(General Laws, Chapter 30, Section 390 as added by Chapter 116 of the Acts of 1973)

Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing, as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in the claim incurred more than twenty days before the general contractor notified the awarding authority in writing of the act of failure to act involved in the claim.

Article 5. DECISIONS AND APPROVALS BY ENGINEER OR ARCHITECT

(General Laws, Chapter 30, Section 39P, as added by Chapter 1164 of the Acts of 1973)

Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the awarding authority, any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.

Article 6. PREFERENCE IN EMPLOYMENT, WAGES

(General Laws, Chapter 149 Section 26 as most recently amended by Chapter 665 of the Acts of 1986 and Chapter 552 of the Acts of 1991).

In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the commonwealth who have been residents of the commonwealth for at least six months at the commencement of their employment who are male veterans as defined in clause Forty-third of section seven of chapter four, and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town or district in the construction of public works, or persons contracting or subcontracting for such works, shall give preference to veterans and citizens who are residents of such county, town or district. The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the commissioner as

hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of the town or towns where said works are being constructed; provided, further, that where the same public work is to be constructed in two or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service of the town paying the highest rate; provided, further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings in the private construction industry between organized labor and employers, the rate or rates to be paid on said works shall not be less than the rates so established, provided, further that in towns where no such rate or rates have been so established, the wages paid to mechanics and apprentices, teamster, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the commonwealth or of a county, town or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriation of more than One Thousand Dollars are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.

Article 7. HOURS OF WORK

(General Laws, Chapter 149 Section 34 as most recently amended by Chapter 552 of the Acts of 1991).

Every contract, except for the purchase of material or supplies, involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the commonwealth or any county or town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the commonwealth, in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in case of emergency, or, in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one day, except as aforesaid, provided, that in contracts entered into by the department of highways for the construction or reconstruction of highways there may be inserted in said stipulation a provision that said department, or any contractor or subcontractor for said department, may employ laborers, workmen, mechanics, foremen and inspectors for more than eight hours in any one day in such construction or reconstruction when, in the opinion of the commissioner of labor and industries, public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void.

Article 8. WORK BY FOREIGN CORPORATIONS

(General Laws, Chapter 30 Section 39L, as most recently amended by Chapter 3 of the Acts of 1967).

The Commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, requests proposals, bids or subbids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for such work with, and shall not approve as a subcontractor furnishing labor and materials for a part of any such work, a foreign corporation which has not filed with such awarding authority a certificate of the state secretary stating that such corporation has complied with sections three and five of chapter one hundred and eighty-one and the date of such compliance, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the Commonwealth.

END OF SUPPLEMENTAL CONDITIONS

BUILDING MAINTENANCE SERVICE CONTRACT

SPECIAL CONDITIONS

The following provisions supplement the General Conditions of the Contract for Non-Technical Services. In the event of conflict or discrepancy between the General Conditions and these Special Conditions, the provisions of the Special Conditions shall govern.

1.0 SUMMARY OF WORK

- A. The Work under the Contract consists of:
 - 1. Furnishing all labor, materials, tools, equipment and supervision necessary to accomplish the work described herein, in accordance with all specifications and requirements of the Project Manual.
 - 2. All work either shown on the Drawings (if any) or included in the specifications unless specifically indicated as not to be done.
- B. In addition, the work under the Contract includes:
 - 1. Work outside the Project Site as called for in the Contract Documents and as required for the performance of the Work.
 - 2. The restoration of any items damaged or destroyed by encroaching upon areas outside the Project Site.
 - 3. Providing and restoring, where appropriate, all temporary facilities.
- C. The Proposed Contract Price shall be complete costs, including overhead, profit, insurance, transportation, and all other costs connected with, or incidental to, the work described.

2.0 PROJECT SITE

- A. The areas of work for this contract shall be various buildings within the City of Newton as specified on Work Orders to be issued from time to time during the term of this Contract.

3.0 NOTICE TO PROCEED/FAILURE TO COMMENCE WORK

- A. From time to time during the term of this Contract, the Contractor shall be issued notice to proceed in the form of a written Work Order issued by the Public Building Department listing specific work items to be performed in accordance with this Contract. The Contractor shall commence performance of the work within the time specified in the Work Order, and in no event within less than the time limits stated in the Work Specifications contained in the Project Manual.
- B. In the event the contractor fails to commence performance within the specified time, and/or notifies the City of its inability to do so, the City shall call upon the second Contractor awarded pursuant to this bid (if any) to perform the required work.
- C. In the event the second Contractor awarded pursuant to this bid is unable to commence performance within the required time, or if there is no second Contractor, the City reserves the right to contract for the work on the open market at the then prevailing rate and to deduct from any monies due or that may thereafter become due to the contractor the difference between the price stated for the work in the contract and the actual cost thereof to the City.

- D. In the event of Contractor's repeated failure to commence work within the time required by these specifications, the City shall exercise all provisions contained in the General Conditions regarding default, suspension or termination of this contract.

4.0 PAYMENT

- A. Once each month, on a date established by the City, the Contractor may submit an Application for Payment (Invoice) for the work performed during the preceeding month. The Contractor may invoice for all Work Orders completed and accepted during the preceeding month, and for all Work Orders either partially completed or not yet accepted by the City.
- B. Upon receipt of the Application for Payment, the City will, within fifteen days, make payment in full for all Work Orders completed and accepted during the preceeding month. For Work Orders partially completed or not yet accepted, the City will make payment for the value of the Work Order completed during the preceeding month, less a retainage of 5% of the estimated total of the Work Order. The City will make final payment for partially completed Work Orders, including any retained amounts, upon completion and acceptance of the work and receipt of an Application for Payment at the end of the month in which the work is completed and accepted.

5.0 COMMUNICATIONS

- A. All notices, demands, requests, instructions, approvals and claims must be in writing.
- B. Any such notice shall be deemed to have been given as of the time of delivery, or of actual receipt in the case of telegrams or, in the case of mailing, when it should have been received in due course of post.
- C. For communicating purposes, the office address of the Contractor shall be that stated on the signature page of the contract; that of the City shall be as stated in the Invitation for Bids. Any subsequent change in address of either party shall be communicated to the other in writing.

6.0 PLANS AND SPECIFICATIONS

- A. The City will furnish to the Contractor, without charge, all copies of the specifications reasonably necessary in the performance of the contract work.

7.0 COORDINATION

The Contractor shall:

- A. Supply to the City the name and telephone number of a responsible person who may be contacted during off-hour emergencies during the term of the Contract.
- B. Cooperate at all times with the City and the Project Manager, and ensure the cooperation of his key personnel and that of his subcontractors.

8.0 CONDUCT OF THE WORK

- A. The work must be completed in a continuous uninterrupted operation. The Contractor must use sufficient workforce and adequate equipment to complete all the necessary work requirements within a minimum period of time.
- B. The work shall be conducted between the hours of 8:00 a.m. and 5:00 p.m. on Monday through Friday. No work shall be done on holidays, Saturdays or Sundays except as specifically requested and authorized by the City.
- C. Under no circumstances will the contractor be paid at a premium or overtime rate for any work performed without the express advance authorization of the City.

- D. The Contractor is responsible for the security of partially completed work until the project is finally accepted by the City.

9.0 ALTERATION

- A. The Contractor shall patch, repair and/or replace all existing materials and surfaces remaining exposed after installation of new work which have been affected by alteration or removal of existing work. All patch and repair work shall match existing.

10.0 GENERAL DIRECTIONS

- A. Damage to Persons and Property

Any damage to buildings, roads, public roads, bituminous concrete areas, fences, lawn areas, trees, shrubbery, electric or telephone poles, underground utilities, etc., shall be repaired by the Contractor at his own expense. Damaged property shall be returned to its original condition prior to the damages within a reasonable time period, except all utility outages shall be repaired immediately.

- B. Protection of Persons and Property

The Contractor shall, at all times, leave an unobstructed way along the roadways and walks, and shall maintain barriers and lights for the protection of all persons and property in all locations where he has materials stored or work going on, and during the entire time such work is going on or material is stored.

- C. Shutdown of Services

The Contractor's attention is especially called to the fact that continuous operation of building utilities and services is mandatory. During the period of construction of the new work and/or alterations to the existing work, the progress and sequence of installation shall be carefully planned and approved by the City. If any building is to be left without heat, hot water, city water, electricity, gas, sanitary facilities, or any other services, the Contractor shall provide reasonable written notice to the City before proceeding.

- D. Care of Work

All work is to be carefully protected so that no injury will come to it from water, frost, accident, or any other cause and any injury which may come to any of the work shall be repaired immediately by the Contractor at his own expense and without additional cost to the City. This shall also apply to any abutting or adjoining work on premises. The Contractor shall be responsible for any damage and in the event of such damage, the Contractor shall repair the damage immediately at his own cost and without additional cost to the City.

- E. Removal of Debris

Debris of any nature shall be completely removed from the site at the end of each days work and disposed of in accordance with all Federal, State and local regulations.

- F. The Contractor is responsible for the security of all work until it is accepted by the City.

11.0 TEMPORARY UTILITIES

- A. Prior to execution of the Work, the Contractor shall confer with a representative of the Public Building Department regarding the use of utilities and facilities at the worksite. No City utilities or facilities are to be used by the Contractor in the performance of this Contract without the prior approval of the City.

12.0 SUBMISSION OF PAYROLLS

- A. The Contractor shall, with each invoice submitted during the term of this Contract, submit to the City two (2) legible copies of his payrolls documenting the wages paid to all employees performing on site labor relating to the work of this Contract. These copies shall be prepared on forms supplied by the City.

13.0 DRAWINGS (IF APPLICABLE)

- A. The drawings attached herein and such drawings as may be issued per addendum, shall constitute an integral part of this section and shall serve as the working drawings.
- B. Drawings shall not be scaled. Field verification is directed since actual locations, dimensions and levels are existing.
- C. All items not specifically mentioned in the specifications or noted on the drawings, but which are obviously necessary to make a complete working installation, shall be included.

14.0 MATERIALS

- A. Unless specifically so stated to the contrary the use of a manufacturer's name or style number is not restrictive, and is intended solely as an identification of the type and quality of the materials and services required. In all cases, the words "or approved equal" if not inserted are implied.
- B. An item equal to that named or described in the specifications may upon written approval of the City be furnished by the Contractor. An item shall be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design; (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased; (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.
- C. The name and identification of all materials other than the one specifically named shall be submitted to the City in writing for approval, prior to purchase, use or fabrication of such items. Approval shall be at the sole discretion of the City, shall be in writing to be effective, and the decision of the City shall be final. The City may require tests of all materials so submitted to establish quality standards at the Contractor's expense.
- D. For the use of material other than the one specified, the Contractor shall assume the cost of and responsibility for satisfactorily accomplishing all changes that may be required in the work as shown. All directions, specifications and recommendations by manufacturers for the installation, handling, storing, adjustment, and operation of their equipment shall be complied with and responsibility for proper performance shall continue to rest with the Contractor.
- E. The Contractor shall not have any right of appeal from the decision of the City condemning any materials furnished if the Contractor fails to obtain the approval for substitution in accordance with these provisions. If any substitutuin is more costly, the Contracotr shall pay for such costs

15.0 WARRANTY AND INDEMNIFICATION

- A. In addition to other guarantees or warranties required under law or other sections of the specification, the Contractor warrants all materials furnished and labor performed under this Contract to be free from defects or errors in workmanship or installation for a period of one year from the date of Completion of the work, as certified by the Project Manager. The Contractor shall indemnify the Authority for the full cost of any damage to the property that may result by reason of such defects or errors and shall indemnify the Authority from and against any and all claims, demands, losses, costs, expenses, liabilities and damages, including reasonable attorney's fees and expenses, arising out of or on account of this Contract, including but not limited to claims brought against the Authority for alleged infringement of patents based upon any methods of construction or application of materials furnished under the Contract.

- B. The Contractor shall indemnify, hold harmless and defend the City and its departments, officers, employees, servants, and agents from and against all actions, causes of actions, claims, demands, damages, costs, loss of services, expenses and compensation, including attorney's fees and interest arising out of or resulting directly or indirectly from the services rendered pursuant to this Contract, provided that any such action, cause of action, claim, demand, damage, cost, loss of service, expense, compensation (1) in any way grows out of bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, which (2) is caused in whole or in part by any act or omission of the Contractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

END OF SECTION

CITY OF NEWTON
MINORITY/ WOMEN BUSINESS ENTERPRISE PLAN
DECEMBER 1, 1999
JANUARY 21, 2010 revised

STATEMENT OF POLICY:

Whereas it is the policy of the government of the United States of America, the Commonwealth of Massachusetts and the City of Newton that no person shall be discriminated against in any manner whatsoever on the grounds of race, religion, color, sex, handicap or national origin; and

Whereas, it is the policy of the government of the United States of America that no person shall, on the grounds of race, color, sex or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program of activity funded entirely or in part by the City, the State or Federal government; and

Whereas, it is the policy of the government of the United States of America to encourage that Minority/Women Business Enterprises shall have the maximum practicable opportunity to participate in Federal and State assisted projects; and all City funded contracts; and

Whereas, it is the policy of the City of Newton to encourage that minority/women business enterprises shall have the maximum practicable opportunity to participate in all City funded contracts; and

Whereas, the City of Newton, as a recipient of Federal and State funds subscribes to the above policies and will fully comply With Federal, State and local laws and directives governing non-discrimination, equal opportunity and affirmative action in all municipal activities; and

Whereas, to further enunciate the equal opportunity policy of the City of Newton's Minority/Women Business Program, the following responsibilities are specified

This MINORITY/ WOMEN Business Enterprise Plan sets forth the administrative standards for the further implementation of the City of Newton's policy of the utilization of minority contractors and subcontractors.

The City of Newton strongly affirms that it will not discriminate in any contractual procedures against any persons because of race, color, religion, age, disability, sex or national origin. This policy shall be administered with a positive supportive attitude.

It is the responsibility of the City of Newton to take affirmative steps to implement this policy to insure equality of opportunity in conducting the Program including notifying those persons and businesses doing business with the City, that contracts for goods, services and construction, shall be made Without reference or regard to race, color, sex, age, handicap, religion or national origin.

Setti D. Warren Mayor

CITY OF NEWTON
MINORITY/ WOMEN BUSINESS ENTERPRISE PLAN
JANUARY 21, 2010

I. DEFINITIONS:

A. **Minority Person**- the term includes a person who is of Black Hispanic, Asian, American Indian or Cape Verdean origin.

B. **Minority Business Enterprise (MBE)** -- the term shall mean a business a) that is certified by SOMWBA; or b) I provides evidence satisfactory to the City's Affirmative Action Officer that it is a business owned or controlled by one or more of the following:

- an individual who is a minority person,
- a partnership or joint venture controlled by minority persons in which at least 51 % of the ownership interest is held by minority persons or,
- a corporation or other entity controlled by minority persons and in which at least 51 % of the stock is owned by one or more minority persons.

C. **Contract Compliance Officer** - the Chief Procurement Officer or his/her designee responsible for the implementation of Newton's Minority/Women Enterprise Plan ("MWBE Plan") and activities.

D. **MCAD** - Massachusetts Commission Against Discrimination.

E. **SOMWBA** -- State Office of Minority/Women Business Assistance,

F. **City** - The City of Newton.

G. **Women Business Enterprise (WBE)** - the term shall mean a business a) that is certified by SOMWBA; or b) provides evidence satisfactory to the City's Affirmative Action Officer that it is a business owned or controlled by one or more of the following:

- an individual who is a woman.
- a partnership or joint venture controlled by women in which at least 51% of the ownership interest is held by women, or
- a corporation or other entity controlled by women and in which at least 51% of the stock is owned by one or more women.

H. **MWBE** — Minority or Women Business Enterprise

II. GOALS:

Newton's Minority/Women Enterprise Plan ("MWBE Plan") shall be guided by the goals presented below to promote minority/women opportunities within the City.

These goals comprise the framework for those activities to be implemented as part of the MWBE Plan:

To take affirmative action in expanding opportunities for minority and women owned firms in obtaining contracts within the City of Newton.

To assure that all contractors, regardless of race color, religion, creed, national origin, sex, age, ancestry or handicap, shall have equal opportunity to City contracting activities.

To award, of the total annual City contract dollars expended, 10 percent to MBE and 5 percent to WBE for construction; for goods and services, 5 percent WBE and 5 percent MBE.

III. SOLICITATION ACTIVITIES:

To notify MWBEs of upcoming contracts for construction, professional services and supplies, funded in whole or in part with Federal, State, and City funds, the following activities will be undertaken. In addition on a regular basis, the City of Newton will distribute to its listing of MWBEs and SOMWBA, a summary of upcoming contract opportunities which are subject to the City's MWBE Plan.

A. Construction Contracts

All construction contracts with an estimated value over \$50,000 will be formally advertised within local, regional, minority and special interest publications at least 14 days prior to the bid opening date.

For all such construction contracts a "Notice of Solicitation" of a project going out to bid will be distributed to appropriate SOMWBA or City certified firms at least 14 days prior to the bid opening date.

B. Contracts for Professional Services

The City of Newton will send notification of its advertised Request for Proposals to appropriate SOMWBA or City certified firms Responding MWBE firms will be considered for contract award within the bounds of generally accepted management practice or with the applicable procurement law relating to securing the lowest cost and best services available.

C. Procurement of Supplies

The City of Newton will (where feasible) utilize MWBEs for the procurement of supplies in accordance with City purchasing procedures. These efforts will be documented and reported to MCAD, and the Mayor's office on a quarterly basis.

IV. CONSTRUCTION ACTIVITIES:

A. Goals

The City of Newton bid documents and contracts with an estimated value over \$50,000 will contain the City's goal of 10% for MBE and 5% for WBE utilization for subcontracts,

B. Pre-Bid Conference

To affirmatively further the opportunities available to prospective bidders, the City will hold a pre-bid conference 5-7 days prior to the bid opening date for all City construction contracts and subcontracts with an estimated value over \$50,000.

The pre-bid conference will provide an opportunity for contractors to: review and clarify the technical requirements of the projects, review the City's MWBE Plan; and review Equal Opportunity requirements. The City will advertise this conference and extend invitations to interested contractors as part of the notice of solicitation.

C. Bid Submission

All bids for City of Newton contracts with an estimated value over \$50,000 shall include a certification of intent to be completed by the bidder swing his/her intent to comply with the City's MWBE Plan. Failure to include this certification shall be an informality which may be waived if such certification is received prior to the award of the contract.

D. Contract Execution

Upon notification of award of the contract, the bidder shall provide a written plan detailing how it will comply with the MWBE Plan

E. Monitoring

Throughout the duration of the contract, the City of Newton through its Contract Compliance Officer, will monitor the progress and activities of all contractors and subcontractors as they attempt to comply with the MWBE Plan.

F. Enforcement

In the case of clear neglect to make a good faith effort to comply with this MWBE Plan, the City of Newton reserves the right to designate contractor, after a hearing, as ineligible for future City bid awards.

V. CONTRACT COMPLIANCE OFFICER/DUTIES AND RESPONSIBILITIES:

The Contract Compliance Officer, as liaison between minority firms and the City of Newton will have the overall responsibility for the implementation of Newton's MWBE Plan. This responsibility includes the development, management, dissemination of information; the provision of technical assistance to minority firms including clarification of procedures to be implemented; maintenance of relevant documentation; completion of reporting requirements; and performance of monitoring and evaluation activities; and maintenance and updating of listings of minority/women business.

The Contract Compliance Officer has oversight of all City procurements for construction, professional services and supplies and shall coordinate the implementation of the MWBE Plan with other City departments.

THE CITY OF NEWTON, MASSACHUSETTS
SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY
ANTI-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

- I. The requirements hereinafter set forth apply to construction contracts which involve an expenditure by the City of \$50,000 or more.
- II. For purposes of this contract "minority" refers to Asian Americans, Black, Hispanics American Indians and Cape Verdeans. The City refers to the- City of Newton
- III. During the performance of this contract the Contractor and all of (his) Subcontractors (hereinafter collectively referred to as the Contractor) , for himself, his assignees, and successors in interest, agree as follows:

In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age or sex. The aforesaid provision shall include, but not be limited to, the following: layoff; termination; rates of pay or other forms of compensation; conditions or privileges of employment; and the selection of apprenticeship. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the City setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (MGL Chapter 151 B) . (See Attachment A)

2. In connection with the performance of work under this contract, the Contractor shall undertake in good faith, affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any effects of such discrimination -in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal employment: opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, Layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age or sex. A purpose of- this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future City public construction projects
-
1. As part of this obligation of remedial action under the foregoing section, the contractor shall maintain on this project a not less than 5 percent ratio of minority employee man hours to total man hours in each job category, including, but not limited to, bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those "classes of work" enumerated in Section 44C of Chapter 149 of the Massachusetts General Laws.
 2. In the hiring of minority journeymen, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals, from the Contractor's affirmative action program approved by the City, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee or the City.

1. At the discretion of the City, there maybe established for the life of this contract a body to be known as the Liaison Committee, The Liaison Committee shall be composed of the Compliance Officer and one representative each from the Departments administering this project, hereinafter called the administering Departments, and such other representatives as may be designated by the City.
2. The Contractor (or, his/her agent, if any, designated by him/her as the onsite equal employment opportunity officer) shall recognize the Liaison Committee as the affirmative action body, and shall establish a continuing working relationship with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.
3. The Contractor shall prepare manning tables on a quarterly basis.* These shall be broken down into projections, by week, for workers required in each trade. Copies shall be furnished one week in advance of the initiation of work and quarterly thereafter to the City and to the Liaison Committee.
4. Records of employment referral orders, prepared by the Contractor, shall be made available to the City and to the Liaison Committee on request.
5. The contractor shall prepare weekly reports in a form approved by the City of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these reports shall be provided at the end of each week to the City and to the Liaison Committee.

* If job is less than three months, prepare for length of job.

- VI. If the Contractor shall use any sub contractor on any work performed under this contract, he/she shall take affirmative action to negotiate with qualified minority subcontractors. This affirmative action shall cover both pre-bid and post-bid periods. It shall include notification to the State Office of: Minority *Business Assistance* or As designee, while bids are in preparation, of all products, work or services for which the Contractor intends to negotiate bids.
- VII. In the employment of journeyman, apprentices, trainees, and advanced trainees, the Contractor shall give preference to citizens of the Commonwealth who have served in the armed forces of the United States in time of war and have been honorably discharged there from or released from active duty therein, and who are qualified to perform the work to which the employment relates, and, secondly to citizens of the Commonwealth generally, and, if such cannot be obtained in sufficient numbers, then to citizens of the United States
- VIII. A designee of the City and a designee of the Liaison Committee shall each have the right of access no the Construction site,
- IX. **Compliance with Requirements**
The Contractor shall comply with the provisions of Chapter 151 B of the Massachusetts General Laws, which are herein incorporated by reference and made as amended by Executive Order 227, and of Chapter 151B as amended, of the Massachusetts General Laws, both *of which* are herein incorporated by reference and made a part of this contract.
- X. **Non-Discrimination**
The Contractor, in the performance of all work after award, and prior to completion of the contract work, will not discriminate on the grounds of race, color, religious creed,

national origin, age or sex in employment practices, in the selection or retention of sub-contractors, or in the procurement of materials and rentals of equipment.

XI. Solicitations for sub-Contracts and for the Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under his contract relative to non-discrimination and affirmative action.

XII. Bidders Certification Requirement

1. The following certification statement will be inserted in the bid document just above the bidder's signature.

"The bidder hereby certifies he shall comply with the minority manpower ratio and specific action steps contained in the City of Newton, Massachusetts Supplemental Equal Employment-- Opportunity Anti-Discrimination and Affirmative Action Program. The Contractor receiving the award of the contract shall be required to obtain from each of its subcontractors and submit to the contracting or, administering agency prior to the performance of any work under said contract a certification by said subcontractor, regardless of tier, that it will comply with the minority manpower ratio and specific affirmative action steps contained in the City of Newton Massachusetts Supplemental Equal Employment Opportunity Anti -Discrimination and Affirmative Action Program.

XIII. Contractor's Certification

A Contractor's certification form must be signed by all successful low bidders prior to award by the City. A Contractor shall not be eligible for award of a contract unless the contractor has executed and submitted the Contractor's Certification, which shall be deemed a part of the resulting contract. (See Attachment B)

XIV. Subcontractor's Certification

Prior to the award of any subcontract, regardless of tier, the prospective subcontractor must execute and submit: to the Prime Contractor a subcontractor's certification setting forth the subcontractor's compliance with this program, which shall be deemed a part of the resulting subcontract. (See Attachment C)

XV. Compliance - Information, Reports and Sanctions

1. The Contractor will provide all information and reports required by the administering department or, the City on instruction issued by either of them and will permit access to its facilities and any books, records, accounts and other sources of information which

may be determined by the City to affect the employment of personnel. This provision shall apply only to information pertinent to the City's supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering department or the City as appropriate and shall set forth what efforts he/she has made to obtain the information.

2. Whenever the administering department, the City, or the Liaison Committee believes the General Contractor or any Subcontractor may not-, be operating in compliance with the terms of this Section, the City directly, or through its designated agent, shall conduct an appropriate investigation, and may confer with the parties, to determine if such Contractor is operating in compliance with the terms of this Section. If the City or its agent finds the General Contractor or any Subcontractor not in compliance, it shall make a preliminary report on non-compliance, and notify such Contractor in writing of such steps as will in the judgment of the City or its agent bring such Contractor into compliance. In the event, that such Contractor fails or refuses to fully perform such steps, the City shall make a final report of non-compliance, and recommend to the administering department the imposition of one or more of the sanctions listed below. If, however, the City believes the General Contractor or any Subcontractor has taken or is taking every possible measure to achieve compliance, it shall not make a final report of non-compliance, within fourteen days at the receipt of the recommendations of the City, the administering department shall move to impose one or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement:
 - (a) The recovery by the administering department from the General Contractor of 1/100 of!! of the contract award price or \$1000 whichever sum is greater, in the nature of liquidated damages or
if a Subcontractor is in non-compliance, the recovery by the administering department from the General Contractor, to be assessed by the General Contractor as a back charge against the Subcontractor, of 1/10 of 1% of the sub-contract price, or \$400 whichever sum is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply
 - (b) The suspension of *any* payment of part thereof due under the contract until such time as the General Contractor or any Subcontractor is able to demonstrate his compliance with the terms of the contract;
 - (c) The termination, or cancellation, of the contract, in whole or in part, unless the General Contractor or any Subcontractor is able to demonstrate within a specified time his/her compliance
with the terms of the City's affirmative action construction contract requirements; OR,
 - (d) The denial to the General Contractor or any Subcontractor of the right to participate in any future contracts awarded by the administering department for a
 - (e) Period of up to three years.
3. If at any time after the imposition of one or more of the above sanctions (unless the contract has been terminated), a Contractor is able to demonstrate that he/she is in compliance with this section, he/she may request the City to suspend the sanctions conditionally pending a final determination by the City as to whether the Contractor is in

compliance. Upon final determination of the City, the administering department, based upon the recommendation of the City, shall either lift the sanctions or continue them.

4. Sanctions enumerated under Section XV shall not be imposed by the City except after the General Contractor or Subcontractor has had an opportunity for full and fair hearing with City. The non-compliance investigation shall be initiated without prior notice to the contractor. Any sanctions to be imposed shall be, set forth fully and completely in writing, and may then be appealed to the City in writing by the Contractor.

.XIV. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court. shall not, affect or impair any of the remaining provisions.

FAIR EMPLOYMENT LAW

The Fair Employment Law declares that it is illegal to discriminate on the basis of race, color, religious creed, national origin, sex, sexual orientation, age, ancestry or disability

IT IS UNLAWFUL:

- to print or circulate any advertisement or use any application form which directly or indirectly specifies any limitation on the basis of race, color, religious creed, national origin, sex, sexual orientation, age, ancestry or disability.
- to discharge or refuse to hire any individual on the basis of their race, color, religious creed, national origin, sex, sexual orientation, age, ancestry, or disability.
- to discriminate against any individual in matters relating to compensation, terms, conditions, or privileges of employment because of their race, color, religious creed, national origin, sex, sexual orientation, age, ancestry or disability.
- to require a woman to leave her job at some arbitrary stage in her pregnancy or to refuse to let her return to work until a specified time set by the employer.
- to grant a female employee at least eight weeks leave for purposes of childbirth or to treat her absence differently than any other absence due to disability.
- to require an employee to remain at work during any day or part thereof that s/he observes as a religious holiday provided that the employee gives a ten-day notice and the absence does not cause undue hardship to the employer.
- to discharge or refuse to hire any person because of their failure to furnish information concerning admission to a center for the treatment of mentally ill persons.
- to discriminate against a job applicant for failure to furnish information, written or oral, concerning:- A) an arrest, detention or disposition regarding a violation of law in which no conviction resulted; B) a first conviction for any of the following misdemeanors: driving under the influence, simple assault, speeding, minor traffic violations, disturbance of the peace; or C) conviction for a misdemeanor where the date of the conviction or end of period of incarceration, if any, occurred more than five years prior to the employment application, and the applicant has not been convicted of any offense within the five years immediately before the date of application.

RETALIATION

It is illegal to retaliate against any person because s/he has opposed any practices forbidden under this Chapter or because s/he has filed a complaint, testified, or assisted in any proceeding before the Commission. It is also illegal to aid, abet, incite, compel or coerce the doings of any of the acts forbidden under this Chapter or to attempt to do so.

SEXUAL HARASSMENT

151B:1,18 The term "sexual harassment" shall mean sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when (a) submission to or rejection of such advances, requests or conduct is made either explicitly or implicitly a term or condition of employment, or as a basis for employment decisions: (h) such advances, requests or conduct have the purpose or effect of unreasonably interfering with an individual's work performance by creating an intimidating, hostile, humiliating or sexually offensive work environment.

COMPLAINTS

All complaints must be filed in writing. Information on the filing of complaints can be obtained by contacting the MASSACHUSETTS COMMISSION AGAINST DISCRIMINATION at the following locations:

Boston office:
One Ashburton Place
Room 601
Boston, MA 02108
(617) 727-3990

Springfield office:
436 Dwight Street
Suite 315
Springfield, MA 01103
(413) 739-2145

CITY OF NEWTON

Contractors Certification

A Contractor will not be eligible for award of a contract, unless such contractor has submitted the following certification, which is deemed a part of the resulting contract.

CONTRACTOR'S CERTIFICATION

Contractor's Name Certifies that:

1. it tends to use the following listed construction trades in the work under the contract _____
_____ and
2. will comply with the minority manpower ration and specific affirmative action steps contained herein;
and
3. will obtain from each of its subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor certification required by these bid conditions

(Signature of authorized representative of Contractor)

Any contract for the provision of goods or services to the City of Newton or any of its departments is subject to the ordinance creating the Human Rights Commission, as it may be amended from time to time. Any complaints within the purview shall be forwarded immediately to the contracting agency, and a copy shall be sent to the Human Rights Commission; any complaints received by the contracting agency shall be forwarded to the contractor, and a copy shall be sent to the Human Rights Commission.

CITY OF NEWTON

Subcontractors Certification

Prior to the award of any subcontract , regardless of tier, the prospective subcontractor must execute and submit to the Prime Contractor the following certification, which will be deemed a part of the resulting subcontractor.

SUBCONTRACTOR'S CERTIFICATION

Contractor's Name Certifies that:

2. it tends to use the following listed construction trades in the work under the contract _____
_____ and
2. will comply with the minority manpower ration and specific affirmative action steps contained herein;
and
3. will obtain from each of its subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor certification required by these bid conditions

(Signature of authorized representative of Contractor)

In order to ensure that the said subcontractor's certification becomes part of all subcontracts under the prime contract, no subcontract shall be executed until an authorizee representative of the Administrative Agency administering this project has determined in writing, that the said certification has been incorporated in such subcontract, regardless of tier, Any subcontract executed without such written approval shall be void.

Any contract for the provision of goods or services to the City of Newton or any of its departments is subject to the ordinance creating the Human Rights Commission, as it may be amended from Lime to Lime. Any complaints within the purview shall be forwarded immediately to the contracting agency, and a copy shall be sent to the Human Rights Commission; any complaints received by the contracting agency shall be forwarded to the contractor, and a copy shall be sent to the Human Rights Commission.

CITY OF NEWTON

WAGE RATE REQUIREMENTS

1. GENERAL

- A.** This section summarizes the requirements for the payment of wages to laborers and mechanics employed under the Contract.
- B.** Other duties and requirements of law which may not be specified in this section apply and are inherently part of the Contract.

2. WAGE RATES

- A.** The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of Labor and Industries. This schedule shall continue to be the minimum rate of wages for said employees during the life of this Contract.
- B.** Keep posted on the site a legible copy of said schedule. Keep on file the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, Administrator, or the Architect.
- C.** Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.
- D.** Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by M.G.L. c 149, Sec. 34B, as amended. Such police officers shall be covered by Workmen's Compensation Insurance and Employers Liability Insurance by the Contractor.
- E.** The Contractor and all subcontractors shall, on a weekly basis throughout the term of the contract, provide to the City of Newton certified payroll affidavits verifying compliance with M.G.L. c.149, Sec. 27, 27A and 27B.
- F.** The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.
- G.** The Contractor shall maintain accurate and complete records, including payroll records, during the Contract term and for three years thereafter. Filings made by the Contractor pursuant to Clauses 47, 48 and 49 of the General Conditions shall be deemed to constitute compliance with State filing requirements under the Massachusetts Prevailing Wage Law.

END OF SECTION

The Massachusetts Prevailing Wage Law M.G.L. ch. 149, §§ 26 – 27

NOTICE TO AWARDING AUTHORITIES

The enclosed wage schedule applies only to the specific project listed at the top and will remain in effect for the duration of the project.

You should request an updated wage schedule from the Division of Occupational Safety if you have not opened bids or selected a contractor within 90 days of the date of issuance of the enclosed wage schedule.

The wage schedule shall be incorporated in any advertisement or call for bids for the project for which it has been issued.

Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project.

NOTICE TO CONTRACTORS

The enclosed wage schedule must be posted in a conspicuous place at the work site during the life of the project.

The wages listed on the enclosed wage schedule must be paid to employees on public works projects regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.

The enclosed wage schedule applies to all phases of the project including the final clean-up. Contractors whose only role is to perform final clean-up must pay their employees according to this wage schedule.

All apprentices must be registered with the Massachusetts Division of Apprentice Training in order to be paid at the reduced apprentice rates. If a worker is not registered with the Division of Apprentice Training, they must be paid the “total rate” listed on the wage schedule regardless of experience or skill level. For further information, please call (617) 727-3486 or write to the Division of Apprentice Training, 399 Washington Street, 4th Floor, Boston, MA 02108

WEEKLY PAYROLL RECORDS REPORT & STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years.

In addition, each such contractor, subcontractor or public body shall furnish to the Department of Labor & Workforce Development/Division of Occupational Safety within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

_____, 2012

I, _____,
(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor, subcontractor or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.

Signature _____

Title _____

DIVISION OF OCCUPATIONAL SAFETY, 399 WASHINGTON STREET, 5TH FL., BOSTON, MA. 02108



DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2012	\$31.25	\$8.56	\$7.27	0.00	\$47.08
	08/01/2012	\$31.25	\$8.91	\$7.27	0.00	\$47.43
	12/01/2012	\$31.55	\$8.91	\$8.00	0.00	\$48.46
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2012	\$31.32	\$8.56	\$7.27	0.00	\$47.15
	08/01/2012	\$31.32	\$8.91	\$7.27	0.00	\$47.50
	12/01/2012	\$31.62	\$8.91	\$8.00	0.00	\$48.53
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2012	\$31.44	\$8.56	\$7.27	0.00	\$47.27
	08/01/2012	\$31.44	\$8.91	\$7.27	0.00	\$47.62
	12/01/2012	\$31.74	\$8.91	\$8.00	0.00	\$48.65
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2011	\$80.43	\$9.80	\$17.12	0.00	\$107.35
AIR TRACK OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	12/01/2012	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	06/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	12/01/2013	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	06/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	12/01/2014	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	06/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	12/01/2015	\$37.55	\$7.10	\$12.45	0.00	\$57.10
	06/01/2016	\$38.30	\$7.10	\$12.45	0.00	\$57.85
	12/01/2016	\$39.30	\$7.10	\$12.45	0.00	\$58.85

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

Issue Date: 07/09/2012

Wage Request Number: 20120705-022

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>ASBESTOS WORKERS LOCAL 6 (BOSTON)</i>	06/01/2012	\$28.48	\$10.40	\$5.95	0.00	\$44.83
	12/01/2012	\$29.08	\$10.40	\$5.95	0.00	\$45.43
	06/01/2013	\$29.88	\$10.40	\$5.95	0.00	\$46.23
	12/01/2013	\$30.68	\$10.40	\$5.95	0.00	\$47.03
	06/01/2014	\$31.58	\$10.40	\$5.95	0.00	\$47.93
	12/01/2014	\$32.48	\$10.40	\$5.95	0.00	\$48.83
	06/01/2015	\$33.43	\$10.40	\$5.95	0.00	\$49.78
	12/01/2015	\$34.38	\$10.40	\$5.95	0.00	\$50.73
ASPHALT RAKER <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.84	\$10.00	\$12.65	0.00	\$62.49
	12/01/2012	\$40.46	\$10.00	\$12.65	0.00	\$63.11
	06/01/2013	\$41.24	\$10.00	\$12.65	0.00	\$63.89
	12/01/2013	\$42.02	\$10.00	\$12.65	0.00	\$64.67
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.84	\$10.00	\$12.65	0.00	\$62.49
	12/01/2012	\$40.46	\$10.00	\$12.65	0.00	\$63.11
	06/01/2013	\$41.24	\$10.00	\$12.65	0.00	\$63.89
	12/01/2013	\$42.02	\$10.00	\$12.65	0.00	\$64.67

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

Issue Date: 07/09/2012

Wage Request Number: 20120705-022

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
	06/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	12/01/2012	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	06/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	12/01/2013	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	06/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	12/01/2014	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	06/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	12/01/2015	\$37.55	\$7.10	\$12.45	0.00	\$57.10
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	06/01/2016	\$38.30	\$7.10	\$12.45	0.00	\$57.85
	12/01/2016	\$39.30	\$7.10	\$12.45	0.00	\$58.85
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2010	\$37.70	\$6.97	\$11.18	0.00	\$55.85

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2010

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$24.51	\$6.97	11.18	\$0.00	\$42.66
2	65	\$24.51	\$6.97	11.18	\$0.00	\$42.66
3	70	\$26.39	\$6.97	11.18	\$0.00	\$44.54
4	75	\$28.28	\$6.97	11.18	\$0.00	\$46.43
5	80	\$30.16	\$6.97	11.18	\$0.00	\$48.31
6	85	\$32.05	\$6.97	11.18	\$0.00	\$50.20
7	90	\$33.93	\$6.97	11.18	\$0.00	\$52.08
8	95	\$35.82	\$6.97	11.18	\$0.00	\$53.97

Notes:

Apprentice to Journeyworker Ratio:1:5

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	03/01/2012	\$46.56	\$10.18	\$17.25	0.00	\$73.99
BRICKLAYERS LOCAL 3 (NEWTON)						

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Newton

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.28	\$10.18	17.25	\$0.00	\$50.71
2	60	\$27.94	\$10.18	17.25	\$0.00	\$55.37
3	70	\$32.59	\$10.18	17.25	\$0.00	\$60.02
4	80	\$37.25	\$10.18	17.25	\$0.00	\$64.68
5	90	\$41.90	\$10.18	17.25	\$0.00	\$69.33

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
OPERATING ENGINEERS LOCAL 4	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
CAISSON & UNDERPINNING BOTTOM MAN	12/01/2011	\$32.80	\$7.10	\$12.60	0.00	\$52.50
LABORERS - FOUNDATION AND MARINE						
CAISSON & UNDERPINNING LABORER	12/01/2011	\$31.65	\$7.10	\$12.60	0.00	\$51.35
LABORERS - FOUNDATION AND MARINE						
CAISSON & UNDERPINNING TOP MAN	12/01/2011	\$31.65	\$7.10	\$12.60	0.00	\$51.35
LABORERS - FOUNDATION AND MARINE						

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DEVAL L. PATRICK
Governor
TIMOTHY F. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARBIDE CORE DRILL OPERATOR	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
LABORERS - ZONE 1	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
CARPENTER	03/01/2012	\$33.03	\$9.80	\$15.61	0.00	\$58.44
CARPENTERS - ZONE 2 (Eastern Massachusetts)						

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Apprentice - CARPENTER - Zone 2 Eastern MA						
Effective Date - 03/01/2012						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.52	\$9.80	1.57	\$0.00	\$27.89
2	60	\$19.82	\$9.80	1.57	\$0.00	\$31.19
3	70	\$23.12	\$9.80	10.90	\$0.00	\$43.82
4	75	\$24.77	\$9.80	10.90	\$0.00	\$45.47
5	80	\$26.42	\$9.80	12.47	\$0.00	\$48.69
6	80	\$26.42	\$9.80	12.47	\$0.00	\$48.69
7	90	\$29.73	\$9.80	14.04	\$0.00	\$53.57
8	90	\$29.73	\$9.80	14.04	\$0.00	\$53.57
Notes:						
Apprentice to Journeyworker Ratio:1:5						

CEMENT MASONRY/PLASTERING BRICKLAYERS LOCAL 3 (NEWTON)	07/01/2012	\$41.76	\$10.50	\$18.61	1.30	\$72.17
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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$40.84	\$10.00	\$12.65	0.00	\$63.49
	12/01/2012	\$41.46	\$10.00	\$12.65	0.00	\$64.11
	06/01/2013	\$42.24	\$10.00	\$12.65	0.00	\$64.89
	12/01/2013	\$43.02	\$10.00	\$12.65	0.00	\$65.67
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$28.09	\$10.00	\$12.65	0.00	\$50.74
	12/01/2012	\$28.54	\$10.00	\$12.65	0.00	\$51.19
	06/01/2013	\$29.09	\$10.00	\$12.65	0.00	\$51.74
	12/01/2013	\$29.64	\$10.00	\$12.65	0.00	\$52.29
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2012	\$44.51	\$7.80	\$15.10	0.00	\$67.41
	01/01/2013	\$45.01	\$7.80	\$15.60	0.00	\$68.41

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27II

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 07/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.26	\$7.80	0.00	\$0.00	\$30.06
2	55	\$24.48	\$7.80	3.38	\$0.00	\$35.66
3	60	\$26.71	\$7.80	3.69	\$0.00	\$38.20
4	65	\$28.93	\$7.80	4.00	\$0.00	\$40.73
5	70	\$31.16	\$7.80	13.26	\$0.00	\$52.22
6	75	\$33.38	\$7.80	13.56	\$0.00	\$54.74
7	80	\$35.61	\$7.80	13.87	\$0.00	\$57.28
8	90	\$40.06	\$7.80	14.49	\$0.00	\$62.35

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.51	\$7.80	0.00	\$0.00	\$30.31
2	55	\$24.76	\$7.80	3.52	\$0.00	\$36.08
3	60	\$27.01	\$7.80	3.84	\$0.00	\$38.65
4	65	\$29.26	\$7.80	4.16	\$0.00	\$41.22
5	70	\$31.51	\$7.80	13.68	\$0.00	\$52.99
6	75	\$33.76	\$7.80	14.00	\$0.00	\$55.56
7	80	\$36.01	\$7.80	14.32	\$0.00	\$58.13
8	90	\$40.51	\$7.80	14.96	\$0.00	\$63.27

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: ADZEMAN LABORERS - ZONE 1	12/01/2011	\$31.80	\$7.10	\$12.45	0.00	\$51.35
DEMO: BACKHOE/LOADER/HAMMER OPERATOR LABORERS - ZONE 1	12/01/2011	\$32.80	\$7.10	\$12.45	0.00	\$52.35
DEMO: BURNERS LABORERS - ZONE 1	12/01/2011	\$32.55	\$7.10	\$12.45	0.00	\$52.10
DEMO: CONCRETE CUTTER/SAWYER LABORERS - ZONE 1	12/01/2011	\$32.80	\$7.10	\$12.45	0.00	\$52.35
DEMO: JACKHAMMER OPERATOR LABORERS - ZONE 1	12/01/2011	\$32.55	\$7.10	\$12.45	0.00	\$52.10
DEMO: WRECKING LABORER LABORERS - ZONE 1	12/01/2011	\$31.80	\$7.10	\$12.45	0.00	\$51.35
DIRECTIONAL DRILL MACHINE OPERATOR OPERATING ENGINEERS LOCAL 4	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
DIVER PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2011	\$53.62	\$9.80	\$17.12	0.00	\$80.54
DIVER TENDER PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2011	\$38.30	\$9.80	\$17.12	0.00	\$65.22
DIVER TENDER (EFFLUENT) PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2011	\$57.45	\$9.80	\$17.12	0.00	\$84.37
DIVER/SLURRY (EFFLUENT) PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2011	\$80.43	\$9.80	\$17.12	0.00	\$107.35

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DEVAL L. PATRICK
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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ELECTRICIAN	03/01/2012	\$42.37	\$13.00	\$13.87	0.00	\$69.24
ELECTRICIANS LOCAL 103	09/01/2012	\$43.05	\$13.00	\$13.89	0.00	\$69.94
	03/01/2013	\$43.77	\$13.00	\$13.91	0.00	\$70.68
	09/01/2013	\$44.45	\$13.00	\$13.93	0.00	\$71.38
	03/01/2014	\$45.17	\$13.00	\$13.95	0.00	\$72.12
	09/01/2014	\$45.84	\$13.00	\$13.97	0.00	\$72.81
	03/01/2015	\$46.55	\$13.00	\$14.00	0.00	\$73.55
	09/01/2015	\$47.51	\$13.00	\$14.03	0.00	\$74.54
	03/01/2016	\$48.47	\$13.00	\$14.05	0.00	\$75.52

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Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ELECTRICIAN - Local 103

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.95	\$13.00	7.81	\$0.00	\$37.76
2	40	\$16.95	\$13.00	7.81	\$0.00	\$37.76
3	45	\$19.07	\$13.00	10.26	\$0.00	\$42.33
4	45	\$19.07	\$13.00	10.26	\$0.00	\$42.33
5	50	\$21.19	\$13.00	10.59	\$0.00	\$44.78
6	55	\$23.30	\$13.00	10.92	\$0.00	\$47.22
7	60	\$25.42	\$13.00	11.24	\$0.00	\$49.66
8	65	\$27.54	\$13.00	11.58	\$0.00	\$52.12
9	70	\$29.66	\$13.00	11.90	\$0.00	\$54.56
10	75	\$31.78	\$13.00	12.23	\$0.00	\$57.01

Effective Date - 09/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.22	\$13.00	7.82	\$0.00	\$38.04
2	40	\$17.22	\$13.00	7.82	\$0.00	\$38.04
3	45	\$19.37	\$13.00	10.27	\$0.00	\$42.64
4	45	\$19.37	\$13.00	10.27	\$0.00	\$42.64
5	50	\$21.53	\$13.00	10.60	\$0.00	\$45.13
6	55	\$23.68	\$13.00	10.93	\$0.00	\$47.61
7	60	\$25.83	\$13.00	11.25	\$0.00	\$50.08
8	65	\$27.98	\$13.00	11.59	\$0.00	\$52.57
9	70	\$30.14	\$13.00	11.91	\$0.00	\$55.05
10	75	\$32.29	\$13.00	12.25	\$0.00	\$57.54

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

Issue Date: 07/09/2012

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27II

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Notes: App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80 Apprentice to Journeyworker Ratio:2:3***						

ELEVATOR CONSTRUCTOR ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2012	\$52.45	\$8.78	\$6.96	0.00	\$68.19
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Apprentice - ELEVATOR CONSTRUCTOR - Local 4

Effective Date - 01/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.23	\$8.78	0.00	\$0.00	\$35.01
2	55	\$28.85	\$8.78	6.96	\$0.00	\$44.59
3	65	\$34.09	\$8.78	6.96	\$0.00	\$49.83
4	70	\$36.72	\$8.78	6.96	\$0.00	\$52.46
5	80	\$41.96	\$8.78	6.96	\$0.00	\$57.70

Notes:
Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2012	\$38.59	\$8.78	\$6.96	0.00	\$54.33
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This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FENCE & GUARD RAIL ERECTOR <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2012	\$37.90	\$10.00	\$12.40	0.00	\$60.30
	11/01/2012	\$38.51	\$10.00	\$12.40	0.00	\$60.91
	05/01/2013	\$39.12	\$10.00	\$12.40	0.00	\$61.52
	11/01/2013	\$39.88	\$10.00	\$12.40	0.00	\$62.28
	05/01/2014	\$40.65	\$10.00	\$12.40	0.00	\$63.05
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2012	\$39.29	\$10.00	\$12.40	0.00	\$61.69
	11/01/2012	\$39.91	\$10.00	\$12.40	0.00	\$62.31
	05/01/2013	\$40.53	\$10.00	\$12.40	0.00	\$62.93
	11/01/2013	\$41.30	\$10.00	\$12.40	0.00	\$63.70
	05/01/2014	\$42.07	\$10.00	\$12.40	0.00	\$64.47
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY <i>OPERATING ENGINEERS LOCAL 4</i>	05/01/2012	\$21.07	\$10.00	\$12.40	0.00	\$43.47
	11/01/2012	\$21.43	\$10.00	\$12.40	0.00	\$43.83
	05/01/2013	\$21.79	\$10.00	\$12.40	0.00	\$44.19
	11/01/2013	\$22.25	\$10.00	\$12.40	0.00	\$44.65
	05/01/2014	\$22.70	\$10.00	\$12.40	0.00	\$45.10

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
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Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIRE ALARM INSTALLER <i>ELECTRICIANS LOCAL 103</i>	03/01/2012	\$42.37	\$13.00	\$13.87	0.00	\$69.24
	09/01/2012	\$43.05	\$13.00	\$13.89	0.00	\$69.94
	03/01/2013	\$43.77	\$13.00	\$13.91	0.00	\$70.68
	09/01/2013	\$44.45	\$13.00	\$13.93	0.00	\$71.38
	03/01/2014	\$45.17	\$13.00	\$13.95	0.00	\$72.12
	09/01/2014	\$45.84	\$13.00	\$13.97	0.00	\$72.81
	03/01/2015	\$46.55	\$13.00	\$14.00	0.00	\$73.55
	09/01/2015	\$47.51	\$13.00	\$14.03	0.00	\$74.54
	03/01/2016	\$48.47	\$13.00	\$14.05	0.00	\$75.52
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING <i>ELECTRICIANS</i> <i>LOCAL 103</i>	03/01/2012	\$31.78	\$13.00	\$12.23	0.00	\$57.01
	09/01/2012	\$32.29	\$13.00	\$12.25	0.00	\$57.54
	03/01/2013	\$32.83	\$13.00	\$12.26	0.00	\$58.09
	09/01/2013	\$33.34	\$13.00	\$12.28	0.00	\$58.62
	03/01/2014	\$33.88	\$13.00	\$12.30	0.00	\$59.18
	09/01/2014	\$34.38	\$13.00	\$12.31	0.00	\$59.69
	03/01/2015	\$34.91	\$13.00	\$12.33	0.00	\$60.24
	09/01/2015	\$35.63	\$13.00	\$12.35	0.00	\$60.98
	03/01/2016	\$36.35	\$13.00	\$12.37	0.00	\$61.72
FIREMAN (ASST. ENGINEER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$33.45	\$10.00	\$12.65	0.00	\$56.10
	12/01/2012	\$33.98	\$10.00	\$12.65	0.00	\$56.63
	06/01/2013	\$34.63	\$10.00	\$12.65	0.00	\$57.28
	12/01/2013	\$35.29	\$10.00	\$12.65	0.00	\$57.94

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27II

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FLAGGER & SIGNALER	06/01/2012	\$20.50	\$7.10	\$12.45	0.00	\$40.05
LABORERS - ZONE 1	12/01/2012	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	06/01/2013	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	12/01/2013	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	06/01/2014	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	12/01/2014	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	06/01/2015	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	12/01/2015	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	06/01/2016	\$20.50	\$7.10	\$12.45	0.00	\$40.05
	12/01/2016	\$20.50	\$7.10	\$12.45	0.00	\$40.05
FLOORCOVERER	03/01/2012	\$37.20	\$9.80	\$16.61	0.00	\$63.61
FLOORCOVERERS LOCAL 2168 ZONE 1						

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27II

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - FLOORCOVERER - Local 2168 Zone I

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.60	\$9.80	1.79	\$0.00	\$30.19
2	55	\$20.46	\$9.80	1.79	\$0.00	\$32.05
3	60	\$22.32	\$9.80	11.24	\$0.00	\$43.36
4	65	\$24.18	\$9.80	11.24	\$0.00	\$45.22
5	70	\$26.04	\$9.80	13.03	\$0.00	\$48.87
6	75	\$27.90	\$9.80	13.03	\$0.00	\$50.73
7	80	\$29.76	\$9.80	14.82	\$0.00	\$54.38
8	85	\$31.62	\$9.80	14.82	\$0.00	\$56.24

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER	06/01/2012	\$39.84	\$10.00	\$12.65	0.00	\$62.49
OPERATING ENGINEERS LOCAL 4	12/01/2012	\$40.46	\$10.00	\$12.65	0.00	\$63.11
	06/01/2013	\$41.24	\$10.00	\$12.65	0.00	\$63.89
	12/01/2013	\$42.02	\$10.00	\$12.65	0.00	\$64.67
GENERATOR/LIGHTING PLANT/HEATERS	06/01/2012	\$28.09	\$10.00	\$12.65	0.00	\$50.74
OPERATING ENGINEERS LOCAL 4	12/01/2012	\$28.54	\$10.00	\$12.65	0.00	\$51.19
	06/01/2013	\$29.09	\$10.00	\$12.65	0.00	\$51.74
	12/01/2013	\$29.64	\$10.00	\$12.65	0.00	\$52.29
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	07/01/2012	\$34.51	\$7.80	\$14.60	0.00	\$56.91
GLAZIERS LOCAL 35 (ZONE 2)	01/01/2013	\$35.51	\$7.80	\$14.60	0.00	\$57.91

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 07/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.26	\$7.80	0.00	\$0.00	\$25.06
2	55	\$18.98	\$7.80	3.25	\$0.00	\$30.03
3	60	\$20.71	\$7.80	3.54	\$0.00	\$32.05
4	65	\$22.43	\$7.80	3.84	\$0.00	\$34.07
5	70	\$24.16	\$7.80	12.83	\$0.00	\$44.79
6	75	\$25.88	\$7.80	13.13	\$0.00	\$46.81
7	80	\$27.61	\$7.80	13.42	\$0.00	\$48.83
8	90	\$31.06	\$7.80	14.01	\$0.00	\$52.87

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.76	\$7.80	0.00	\$0.00	\$25.56
2	55	\$19.53	\$7.80	3.25	\$0.00	\$30.58
3	60	\$21.31	\$7.80	3.54	\$0.00	\$32.65
4	65	\$23.08	\$7.80	3.84	\$0.00	\$34.72
5	70	\$24.86	\$7.80	12.83	\$0.00	\$45.49
6	75	\$26.63	\$7.80	13.13	\$0.00	\$47.56
7	80	\$28.41	\$7.80	13.42	\$0.00	\$49.63
8	90	\$31.96	\$7.80	14.01	\$0.00	\$53.77

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HOISTING ENGINEER/CRANES/GRADALLS	06/01/2012	\$39.84	\$10.00	\$12.65	0.00	\$62.49
OPERATING ENGINEERS LOCAL 4	12/01/2012	\$40.46	\$10.00	\$12.65	0.00	\$63.11
	06/01/2013	\$41.24	\$10.00	\$12.65	0.00	\$63.89
	12/01/2013	\$42.02	\$10.00	\$12.65	0.00	\$64.67

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

Issue Date: 07/09/2012 Wage Request Number: 20120705-022

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - HOIST/PORT. ENG.- Local 4

Effective Date - 06/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$21.91	\$10.00	0.00	\$0.00	\$31.91
2	60	\$23.90	\$10.00	12.65	\$0.00	\$46.55
3	65	\$25.90	\$10.00	12.65	\$0.00	\$48.55
4	70	\$27.89	\$10.00	12.65	\$0.00	\$50.54
5	75	\$29.88	\$10.00	12.65	\$0.00	\$52.53
6	80	\$31.87	\$10.00	12.65	\$0.00	\$54.52
7	85	\$33.86	\$10.00	12.65	\$0.00	\$56.51
8	90	\$35.86	\$10.00	12.65	\$0.00	\$58.51

Effective Date - 12/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.25	\$10.00	0.00	\$0.00	\$32.25
2	60	\$24.28	\$10.00	12.65	\$0.00	\$46.93
3	65	\$26.30	\$10.00	12.65	\$0.00	\$48.95
4	70	\$28.32	\$10.00	12.65	\$0.00	\$50.97
5	75	\$30.35	\$10.00	12.65	\$0.00	\$53.00
6	80	\$32.37	\$10.00	12.65	\$0.00	\$55.02
7	85	\$34.39	\$10.00	12.65	\$0.00	\$57.04
8	90	\$36.41	\$10.00	12.65	\$0.00	\$59.06

Notes:

Apprentice to Journeyworker Ratio:1:6

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2012	\$40.79	\$9.82	\$17.34	2.04	\$69.99
	08/01/2012	\$42.04	\$9.82	\$17.34	2.08	\$71.28
	02/01/2013	\$43.29	\$9.82	\$17.34	2.11	\$72.56
HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 103</i>	03/01/2012	\$42.37	\$13.00	\$13.87	0.00	\$69.24
	09/01/2012	\$43.05	\$13.00	\$13.89	0.00	\$69.94
	03/01/2013	\$43.77	\$13.00	\$13.91	0.00	\$70.68
	09/01/2013	\$44.45	\$13.00	\$13.93	0.00	\$71.38
	03/01/2014	\$45.17	\$13.00	\$13.95	0.00	\$72.12
	09/01/2014	\$45.84	\$13.00	\$13.97	0.00	\$72.81
	03/01/2015	\$46.55	\$13.00	\$14.00	0.00	\$73.55
	09/01/2015	\$47.51	\$13.00	\$14.03	0.00	\$74.54
HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	03/01/2016	\$48.47	\$13.00	\$14.05	0.00	\$75.52
	02/01/2012	\$40.79	\$9.82	\$17.34	2.04	\$69.99
	08/01/2012	\$42.04	\$9.82	\$17.34	2.08	\$71.28
HVAC (TESTING AND BALANCING -WATER) <i>PIPEFITTERS LOCAL 537</i>	02/01/2013	\$43.29	\$9.82	\$17.34	2.11	\$72.56
	03/01/2012	\$46.84	\$8.75	\$14.39	0.00	\$69.98
	09/01/2012	\$48.09	\$8.75	\$14.39	0.00	\$71.23
HVAC MECHANIC <i>PIPEFITTERS LOCAL 537</i>	03/01/2013	\$49.34	\$8.75	\$14.39	0.00	\$72.48
	03/01/2012	\$46.84	\$8.75	\$14.39	0.00	\$69.98
	09/01/2012	\$48.09	\$8.75	\$14.39	0.00	\$71.23
	03/01/2013	\$49.34	\$8.75	\$14.39	0.00	\$72.48

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HYDRAULIC DRILLS <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	12/01/2012	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	06/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	12/01/2013	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	06/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	12/01/2014	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	06/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	12/01/2015	\$37.55	\$7.10	\$12.45	0.00	\$57.10
INSULATOR (PIPES & TANKS) <i>ASBESTOS WORKERS LOCAL 6 (BOSTON)</i>	06/01/2016	\$38.30	\$7.10	\$12.45	0.00	\$57.85
	12/01/2016	\$39.30	\$7.10	\$12.45	0.00	\$58.85
	09/01/2011	\$40.66	\$10.40	\$11.20	0.00	\$62.26
	09/01/2012	\$42.06	\$10.40	\$11.20	0.00	\$63.66
	09/01/2013	\$43.66	\$10.40	\$11.20	0.00	\$65.26
	09/01/2014	\$45.66	\$10.40	\$11.20	0.00	\$67.26

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston

Effective Date - 09/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.33	\$10.40	8.30	\$0.00	\$39.03
2	60	\$24.40	\$10.40	8.88	\$0.00	\$43.68
3	70	\$28.46	\$10.40	9.46	\$0.00	\$48.32
4	80	\$32.53	\$10.40	10.04	\$0.00	\$52.97

Effective Date - 09/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.03	\$10.40	8.30	\$0.00	\$39.73
2	60	\$25.24	\$10.40	8.88	\$0.00	\$44.52
3	70	\$29.44	\$10.40	9.46	\$0.00	\$49.30
4	80	\$33.65	\$10.40	10.04	\$0.00	\$54.09

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER	04/02/2012	\$37.99	\$7.70	\$18.35	0.00	\$64.04
IRONWORKERS LOCAL 7	09/16/2012	\$38.99	\$7.70	\$18.35	0.00	\$65.04
	03/16/2013	\$40.24	\$7.70	\$18.35	0.00	\$66.29

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - IRONWORKER - Local 7 Boston

Effective Date - 04/02/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$22.79	\$7.70	18.35	\$0.00	\$48.84
2	70	\$26.59	\$7.70	18.35	\$0.00	\$52.64
3	75	\$28.49	\$7.70	18.35	\$0.00	\$54.54
4	80	\$30.39	\$7.70	18.35	\$0.00	\$56.44
5	85	\$32.29	\$7.70	18.35	\$0.00	\$58.34
6	90	\$34.19	\$7.70	18.35	\$0.00	\$60.24

Effective Date - 09/16/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$23.39	\$7.70	18.35	\$0.00	\$49.44
2	70	\$27.29	\$7.70	18.35	\$0.00	\$53.34
3	75	\$29.24	\$7.70	18.35	\$0.00	\$55.29
4	80	\$31.19	\$7.70	18.35	\$0.00	\$57.24
5	85	\$33.14	\$7.70	18.35	\$0.00	\$59.19
6	90	\$35.09	\$7.70	18.35	\$0.00	\$61.14

Notes:

** Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:**

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
JACKHAMMER & PAVING BREAKER OPERATOR LABORERS - ZONE 1	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
LABORER LABORERS - ZONE 1	06/01/2012	\$31.80	\$7.10	\$12.45	0.00	\$51.35
	12/01/2012	\$32.30	\$7.10	\$12.45	0.00	\$51.85
	06/01/2013	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	12/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	06/01/2014	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	12/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	06/01/2015	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	12/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	06/01/2016	\$37.55	\$7.10	\$12.45	0.00	\$57.10
	12/01/2016	\$38.55	\$7.10	\$12.45	0.00	\$58.10

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations
Classification

		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Apprentice - LABORER - Zone 1							
Effective Date - 06/01/2012							
Step	percent		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60		\$19.08	\$7.10	12.45	\$0.00	\$38.63
2	70		\$22.26	\$7.10	12.45	\$0.00	\$41.81
3	80		\$25.44	\$7.10	12.45	\$0.00	\$44.99
4	90		\$28.62	\$7.10	12.45	\$0.00	\$48.17
Effective Date - 12/01/2012							
Step	percent		Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60		\$19.38	\$7.10	12.45	\$0.00	\$38.93
2	70		\$22.61	\$7.10	12.45	\$0.00	\$42.16
3	80		\$25.84	\$7.10	12.45	\$0.00	\$45.39
4	90		\$29.07	\$7.10	12.45	\$0.00	\$48.62

Notes:

Apprentice to Journeyworker Ratio:1:5

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: CARPENTER TENDER LABORERS - ZONE 1	06/01/2012	\$31.80	\$7.10	\$12.45	0.00	\$51.35
	12/01/2012	\$32.30	\$7.10	\$12.45	0.00	\$51.85
	06/01/2013	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	12/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	06/01/2014	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	12/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	06/01/2015	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	12/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	06/01/2016	\$37.55	\$7.10	\$12.45	0.00	\$57.10
	12/01/2016	\$38.55	\$7.10	\$12.45	0.00	\$58.10
LABORER: CEMENT FINISHER TENDER LABORERS - ZONE 1	06/01/2012	\$31.80	\$7.10	\$12.45	0.00	\$51.35
	12/01/2012	\$32.30	\$7.10	\$12.45	0.00	\$51.85
	06/01/2013	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	12/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	06/01/2014	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	12/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	06/01/2015	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	12/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	06/01/2016	\$37.55	\$7.10	\$12.45	0.00	\$57.10
	12/01/2016	\$38.55	\$7.10	\$12.45	0.00	\$58.10
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER LABORERS - ZONE 1	12/01/2011	\$31.80	\$7.10	\$12.45	0.00	\$51.35

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MASON TENDER LABORERS - ZONE 1	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
LABORER: MULTI-TRADE TENDER LABORERS - ZONE 1	06/01/2012	\$31.80	\$7.10	\$12.45	0.00	\$51.35
	12/01/2012	\$32.30	\$7.10	\$12.45	0.00	\$51.85
	06/01/2013	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	12/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	06/01/2014	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	12/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	06/01/2015	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	12/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	06/01/2016	\$37.55	\$7.10	\$12.45	0.00	\$57.10
	12/01/2016	\$38.55	\$7.10	\$12.45	0.00	\$58.10

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: TREE REMOVER <i>LABORERS - ZONE 1</i>	06/01/2012	\$31.80	\$7.10	\$12.45	0.00	\$51.35
	12/01/2012	\$32.30	\$7.10	\$12.45	0.00	\$51.85
	06/01/2013	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	12/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	06/01/2014	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	12/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	06/01/2015	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	12/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	06/01/2016	\$37.55	\$7.10	\$12.45	0.00	\$57.10
	12/01/2016	\$38.55	\$7.10	\$12.45	0.00	\$58.10
This classification applies to the wholesale removal of standing trees including all associated trimming of branches and limbs, and applies to the removal of branches at locations not on or around utility lines.						
LASER BEAM OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE & TILE</i>	03/01/2012	\$35.52	\$10.18	\$16.04	0.00	\$61.74

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.76	\$10.18	16.04	\$0.00	\$43.98
2	60	\$21.31	\$10.18	16.04	\$0.00	\$47.53
3	70	\$24.86	\$10.18	16.04	\$0.00	\$51.08
4	80	\$28.42	\$10.18	16.04	\$0.00	\$54.64
5	90	\$31.97	\$10.18	16.04	\$0.00	\$58.19

Notes:

Steps are 800 hrs.

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH 03/01/2012 \$46.60 \$10.18 \$17.25 0.00 \$74.03
BRICKLAYERS LOCAL 3 - MARBLE & TILE

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.30	\$10.18	17.25	\$0.00	\$50.73
2	60	\$27.96	\$10.18	17.25	\$0.00	\$55.39
3	70	\$32.62	\$10.18	17.25	\$0.00	\$60.05
4	80	\$37.28	\$10.18	17.25	\$0.00	\$64.71
5	90	\$41.94	\$10.18	17.25	\$0.00	\$69.37

Notes:

Apprentice to Journeyworker Ratio:1:3

MECH. SWEEPER OPERATOR (ON CONST. SITES)	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
OPERATING ENGINEERS LOCAL 4	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
MECHANICS MAINTENANCE	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
OPERATING ENGINEERS LOCAL 4	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
MILLWRIGHT (Zone 1)	04/01/2011	\$33.57	\$8.67	\$15.61	0.00	\$57.85
MILLWRIGHTS LOCAL 1121 - Zone 1						

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - MILLWRIGHT - Local 1121 Zone 1

Effective Date - 04/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.79	\$8.67	11.64	\$0.00	\$37.10
2	55	\$18.46	\$8.67	11.64	\$0.00	\$38.77
3	60	\$20.14	\$8.67	13.23	\$0.00	\$42.04
4	65	\$21.82	\$8.67	13.23	\$0.00	\$43.72
5	70	\$23.50	\$8.67	14.02	\$0.00	\$46.19
6	75	\$25.18	\$8.67	14.02	\$0.00	\$47.87
7	80	\$26.86	\$8.67	14.82	\$0.00	\$50.35
8	85	\$28.53	\$8.67	14.82	\$0.00	\$52.02

Notes:

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
LABORERS - ZONE 1	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
OILER (OTHER THAN TRUCK CRANES, GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$21.31	\$10.00	\$12.65	0.00	\$43.96
	12/01/2012	\$21.65	\$10.00	\$12.65	0.00	\$44.30
	06/01/2013	\$22.07	\$10.00	\$12.65	0.00	\$44.72
	12/01/2013	\$22.49	\$10.00	\$12.65	0.00	\$45.14
OILER (TRUCK CRANES, GRADALLS) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$24.60	\$10.00	\$12.65	0.00	\$47.25
	12/01/2012	\$24.99	\$10.00	\$12.65	0.00	\$47.64
	06/01/2013	\$25.47	\$10.00	\$12.65	0.00	\$48.12
	12/01/2013	\$25.96	\$10.00	\$12.65	0.00	\$48.61
OTHER POWER DRIVEN EQUIPMENT - CLASS II <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
PAINTER (BRIDGES/TANKS) <i>PAINTERS LOCAL 35 - ZONE 2</i>	07/01/2012	\$44.51	\$7.80	\$15.10	0.00	\$67.41
	01/01/2013	\$45.01	\$7.80	\$15.60	0.00	\$68.41

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 07/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.26	\$7.80	0.00	\$0.00	\$30.06
2	55	\$24.48	\$7.80	3.38	\$0.00	\$35.66
3	60	\$26.71	\$7.80	3.69	\$0.00	\$38.20
4	65	\$28.93	\$7.80	4.00	\$0.00	\$40.73
5	70	\$31.16	\$7.80	13.26	\$0.00	\$52.22
6	75	\$33.38	\$7.80	13.56	\$0.00	\$54.74
7	80	\$35.61	\$7.80	13.87	\$0.00	\$57.28
8	90	\$40.06	\$7.80	14.49	\$0.00	\$62.35

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.51	\$7.80	0.00	\$0.00	\$30.31
2	55	\$24.76	\$7.80	3.52	\$0.00	\$36.08
3	60	\$27.01	\$7.80	3.84	\$0.00	\$38.65
4	65	\$29.26	\$7.80	4.16	\$0.00	\$41.22
5	70	\$31.51	\$7.80	13.68	\$0.00	\$52.99
6	75	\$33.76	\$7.80	14.00	\$0.00	\$55.56
7	80	\$36.01	\$7.80	14.32	\$0.00	\$58.13
8	90	\$40.51	\$7.80	14.96	\$0.00	\$63.27

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PAINTER (SPRAY OR SANDBLAST, NEW) *	07/01/2012	\$35.41	\$7.80	\$15.10	0.00	\$58.31
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. <i>PAINTERS LOCAL 35 - ZONE 2</i>	01/01/2013	\$35.91	\$7.80	\$15.60	0.00	\$59.31

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New

Effective Date - 07/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.71	\$7.80	0.00	\$0.00	\$25.51
2	55	\$19.48	\$7.80	3.38	\$0.00	\$30.66
3	60	\$21.25	\$7.80	3.69	\$0.00	\$32.74
4	65	\$23.02	\$7.80	4.00	\$0.00	\$34.82
5	70	\$24.79	\$7.80	13.26	\$0.00	\$45.85
6	75	\$26.56	\$7.80	13.56	\$0.00	\$47.92
7	80	\$28.33	\$7.80	13.87	\$0.00	\$50.00
8	90	\$31.87	\$7.80	14.49	\$0.00	\$54.16

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.96	\$7.80	0.00	\$0.00	\$25.76
2	55	\$19.75	\$7.80	3.52	\$0.00	\$31.07
3	60	\$21.55	\$7.80	3.84	\$0.00	\$33.19
4	65	\$23.34	\$7.80	4.16	\$0.00	\$35.30
5	70	\$25.14	\$7.80	13.68	\$0.00	\$46.62
6	75	\$26.93	\$7.80	14.00	\$0.00	\$48.73
7	80	\$28.73	\$7.80	14.32	\$0.00	\$50.85
8	90	\$32.32	\$7.80	14.96	\$0.00	\$55.08

Notes:

Apprentice to Journeyworker Ratio:1:1

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PAINTER (SPRAY OR SANDBLAST, REPAINT)	07/01/2012	\$33.47	\$7.80	\$15.10	0.00	\$56.37
PAINTERS LOCAL 35 - ZONE 2	01/01/2013	\$33.97	\$7.80	\$15.60	0.00	\$57.37

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations
Classification

		Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint							
Effective Date - 07/01/2012							
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
1	50	\$16.74	\$7.80	0.00	\$0.00	\$24.54	
2	55	\$18.41	\$7.80	3.38	\$0.00	\$29.59	
3	60	\$20.08	\$7.80	3.69	\$0.00	\$31.57	
4	65	\$21.76	\$7.80	4.00	\$0.00	\$33.56	
5	70	\$23.43	\$7.80	13.26	\$0.00	\$44.49	
6	75	\$25.10	\$7.80	13.56	\$0.00	\$46.46	
7	80	\$26.78	\$7.80	13.87	\$0.00	\$48.45	
8	90	\$30.12	\$7.80	14.49	\$0.00	\$52.41	
Effective Date - 01/01/2013							
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate	
1	50	\$16.99	\$7.80	0.00	\$0.00	\$24.79	
2	55	\$18.68	\$7.80	3.52	\$0.00	\$30.00	
3	60	\$20.38	\$7.80	3.84	\$0.00	\$32.02	
4	65	\$22.08	\$7.80	4.16	\$0.00	\$34.04	
5	70	\$23.78	\$7.80	13.68	\$0.00	\$45.26	
6	75	\$25.48	\$7.80	14.00	\$0.00	\$47.28	
7	80	\$27.18	\$7.80	14.32	\$0.00	\$49.30	
8	90	\$30.57	\$7.80	14.96	\$0.00	\$53.33	

Notes:

Apprentice to Journeyworker Ratio:1:1

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PAINTER (TRAFFIC MARKINGS) LABORERS - ZONE 1	06/01/2012	\$31.80	\$7.10	\$12.45	0.00	\$51.35
	12/01/2012	\$32.30	\$7.10	\$12.45	0.00	\$51.85
	06/01/2013	\$33.05	\$7.10	\$12.45	0.00	\$52.60
	12/01/2013	\$33.80	\$7.10	\$12.45	0.00	\$53.35
	06/01/2014	\$34.55	\$7.10	\$12.45	0.00	\$54.10
	12/01/2014	\$35.30	\$7.10	\$12.45	0.00	\$54.85
	06/01/2015	\$36.05	\$7.10	\$12.45	0.00	\$55.60
	12/01/2015	\$36.80	\$7.10	\$12.45	0.00	\$56.35
	06/01/2016	\$37.55	\$7.10	\$12.45	0.00	\$57.10
	12/01/2016	\$38.55	\$7.10	\$12.45	0.00	\$58.10
PAINTER / TAPER (BRUSH, NEW) *	07/01/2012	\$34.01	\$7.80	\$15.10	0.00	\$56.91
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2	01/01/2013	\$34.51	\$7.80	\$15.60	0.00	\$57.91

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

Effective Date - 07/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.01	\$7.80	0.00	\$0.00	\$24.81
2	55	\$18.71	\$7.80	3.38	\$0.00	\$29.89
3	60	\$20.41	\$7.80	3.69	\$0.00	\$31.90
4	65	\$22.11	\$7.80	4.00	\$0.00	\$33.91
5	70	\$23.81	\$7.80	13.26	\$0.00	\$44.87
6	75	\$25.51	\$7.80	13.56	\$0.00	\$46.87
7	80	\$27.21	\$7.80	13.87	\$0.00	\$48.88
8	90	\$30.61	\$7.80	14.49	\$0.00	\$52.90

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.26	\$7.80	0.00	\$0.00	\$25.06
2	55	\$18.98	\$7.80	3.52	\$0.00	\$30.30
3	60	\$20.71	\$7.80	3.84	\$0.00	\$32.35
4	65	\$22.43	\$7.80	4.16	\$0.00	\$34.39
5	70	\$24.16	\$7.80	13.68	\$0.00	\$45.64
6	75	\$25.88	\$7.80	14.00	\$0.00	\$47.68
7	80	\$27.61	\$7.80	14.32	\$0.00	\$49.73
8	90	\$31.06	\$7.80	14.96	\$0.00	\$53.82

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27II

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PAINTER / TAPER (BRUSH, REPAINT)	07/01/2012	\$32.07	\$7.80	\$15.10	0.00	\$54.97
PAINTERS LOCAL 35 - ZONE 2	01/01/2013	\$32.57	\$7.80	\$15.60	0.00	\$55.97

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 07/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.04	\$7.80	0.00	\$0.00	\$23.84
2	55	\$17.64	\$7.80	3.38	\$0.00	\$28.82
3	60	\$19.24	\$7.80	3.69	\$0.00	\$30.73
4	65	\$20.85	\$7.80	4.00	\$0.00	\$32.65
5	70	\$22.45	\$7.80	13.26	\$0.00	\$43.51
6	75	\$24.05	\$7.80	13.56	\$0.00	\$45.41
7	80	\$25.66	\$7.80	13.87	\$0.00	\$47.33
8	90	\$28.86	\$7.80	14.49	\$0.00	\$51.15

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.29	\$7.80	0.00	\$0.00	\$24.09
2	55	\$17.91	\$7.80	3.52	\$0.00	\$29.23
3	60	\$19.54	\$7.80	3.84	\$0.00	\$31.18
4	65	\$21.17	\$7.80	4.16	\$0.00	\$33.13
5	70	\$22.80	\$7.80	13.68	\$0.00	\$44.28
6	75	\$24.43	\$7.80	14.00	\$0.00	\$46.23
7	80	\$26.06	\$7.80	14.32	\$0.00	\$48.18
8	90	\$29.31	\$7.80	14.96	\$0.00	\$52.07

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PANEL & PICKUP TRUCKS DRIVER TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	06/01/2012	\$31.08	\$8.56	\$7.27	0.00	\$46.91
	08/01/2012	\$31.08	\$8.91	\$7.27	0.00	\$47.26
	12/01/2012	\$31.38	\$8.91	\$8.00	0.00	\$48.29
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2011	\$38.30	\$9.80	\$17.12	0.00	\$65.22
PILE DRIVER PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2011	\$38.30	\$9.80	\$17.12	0.00	\$65.22

Apprentice - PILE DRIVER - Local 56 Zone 1

Effective Date - 08/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$22.98	\$8.08	17.12	\$0.00	\$48.18
2	65	\$24.90	\$8.08	17.12	\$0.00	\$50.10
3	70	\$26.81	\$8.08	17.12	\$0.00	\$52.01
4	75	\$28.73	\$8.08	17.12	\$0.00	\$53.93
5	80	\$30.64	\$8.08	17.12	\$0.00	\$55.84
6	85	\$32.56	\$8.08	17.12	\$0.00	\$57.76
7	90	\$34.47	\$8.08	17.12	\$0.00	\$59.67
8	95	\$36.39	\$8.08	17.12	\$0.00	\$61.59

Notes:

Apprentice to Journeyworker Ratio:1:3

PIPEFITTER & STEAMFITTER PIPEFITTERS LOCAL 537	03/01/2012	\$46.84	\$8.75	\$14.39	0.00	\$69.98
	09/01/2012	\$48.09	\$8.75	\$14.39	0.00	\$71.23
	03/01/2013	\$49.34	\$8.75	\$14.39	0.00	\$72.48

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27II

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification **Effective Date** **Base Wage** **Health** **Pension** **Supplemental Unemployment** **Total Rate**

Apprentice - PIPEFITTER - Local 537

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.74	\$8.75	6.50	\$0.00	\$33.99
2	45	\$21.08	\$8.75	14.39	\$0.00	\$44.22
3	60	\$28.10	\$8.75	14.39	\$0.00	\$51.24
4	70	\$32.79	\$8.75	14.39	\$0.00	\$55.93
5	80	\$37.47	\$8.75	14.39	\$0.00	\$60.61

Effective Date - 09/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.24	\$8.75	6.50	\$0.00	\$34.49
2	45	\$21.64	\$8.75	14.39	\$0.00	\$44.78
3	60	\$28.85	\$8.75	14.39	\$0.00	\$51.99
4	70	\$33.66	\$8.75	14.39	\$0.00	\$56.80
5	80	\$38.47	\$8.75	14.39	\$0.00	\$61.61

Notes:

** 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.

Refrig/AC Mechanic **1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

Apprentice to Journeyworker Ratio:**

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
PLUMBERS & GASFITTERS <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2012	\$46.81	\$9.32	\$13.29	0.00	\$69.42
	09/01/2012	\$48.06	\$9.32	\$13.29	0.00	\$70.67
	03/01/2013	\$49.31	\$9.32	\$13.29	0.00	\$71.92

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

Issue Date: 07/09/2012

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PLUMBER - Local 12

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$16.38	\$9.32	4.97	\$0.00	\$30.67
2	40	\$18.72	\$9.32	5.61	\$0.00	\$33.65
3	55	\$25.75	\$9.32	7.53	\$0.00	\$42.60
4	65	\$30.43	\$9.32	8.81	\$0.00	\$48.56
5	75	\$35.11	\$9.32	10.09	\$0.00	\$54.52

Effective Date - 09/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$16.82	\$9.32	4.97	\$0.00	\$31.11
2	40	\$19.22	\$9.32	5.61	\$0.00	\$34.15
3	55	\$26.43	\$9.32	7.53	\$0.00	\$43.28
4	65	\$31.24	\$9.32	8.81	\$0.00	\$49.37
5	75	\$36.05	\$9.32	10.09	\$0.00	\$55.46

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$51.54 Step5 with lic\$57.49

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.)	03/01/2012	\$46.84	\$8.75	\$14.39	0.00	\$69.98
PIPEFITTERS LOCAL 537	09/01/2012	\$48.09	\$8.75	\$14.39	0.00	\$71.23
	03/01/2013	\$49.34	\$8.75	\$14.39	0.00	\$72.48

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
POWDERMAN & BLASTER <i>LABORERS - ZONE 1</i>	06/01/2012	\$32.80	\$7.10	\$12.45	0.00	\$52.35
	12/01/2012	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	06/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	12/01/2013	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	06/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	12/01/2014	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	06/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	12/01/2015	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	06/01/2016	\$38.55	\$7.10	\$12.45	0.00	\$58.10
	12/01/2016	\$39.55	\$7.10	\$12.45	0.00	\$59.10
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.84	\$10.00	\$12.65	0.00	\$62.49
	12/01/2012	\$40.46	\$10.00	\$12.65	0.00	\$63.11
	06/01/2013	\$41.24	\$10.00	\$12.65	0.00	\$63.89
	12/01/2013	\$42.02	\$10.00	\$12.65	0.00	\$64.67
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.84	\$10.00	\$12.65	0.00	\$62.49
	12/01/2012	\$40.46	\$10.00	\$12.65	0.00	\$63.11
	06/01/2013	\$41.24	\$10.00	\$12.65	0.00	\$63.89
	12/01/2013	\$42.02	\$10.00	\$12.65	0.00	\$64.67

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$28.09	\$10.00	\$12.65	0.00	\$50.74
	12/01/2012	\$28.54	\$10.00	\$12.65	0.00	\$51.19
	06/01/2013	\$29.09	\$10.00	\$12.65	0.00	\$51.74
	12/01/2013	\$29.64	\$10.00	\$12.65	0.00	\$52.29
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 256</i>	05/01/2011	\$28.03	\$7.75	\$5.91	0.00	\$41.69
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2011	\$24.24	\$8.67	\$15.51	0.00	\$48.42
RESIDENTIAL WOOD FRAME CARPENTER **	05/01/2011	\$24.24	\$6.34	\$6.23	0.00	\$36.81

** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. *CARPENTERS -ZONE 2 (Residential Wood)*

As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - CARPENTER (Residential Wood Frame) - Zone 2

Effective Date - 05/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.54	\$6.34	0.00	\$0.00	\$20.88
2	60	\$14.54	\$6.34	6.23	\$0.00	\$27.11
3	65	\$15.76	\$6.34	6.23	\$0.00	\$28.33
4	70	\$16.97	\$6.34	6.23	\$0.00	\$29.54
5	75	\$18.18	\$6.34	6.23	\$0.00	\$30.75
6	80	\$19.39	\$6.34	6.23	\$0.00	\$31.96
7	85	\$20.60	\$6.34	6.23	\$0.00	\$33.17
8	90	\$21.82	\$6.34	6.23	\$0.00	\$34.39

Notes:

Apprentice to Journeyworker Ratio:1:5

RIDE-ON MOTORIZED BUGGY OPERATOR	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
LABORERS - ZONE 1	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ROLLER/SPREADER/MULCHING MACHINE OPERATING ENGINEERS LOCAL 4	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
ROOFER (Inc. Roofer Waterproofing & Roofer Damproofing) ROOFERS LOCAL 33	02/01/2012	\$35.56	\$10.50	\$10.70	0.00	\$56.76
	08/01/2012	\$36.56	\$10.50	\$10.70	0.00	\$57.76
	02/01/2013	\$37.56	\$10.50	\$10.70	0.00	\$58.76

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.78	\$10.50	3.38	\$0.00	\$31.66
2	60	\$21.34	\$10.50	10.70	\$0.00	\$42.54
3	65	\$23.11	\$10.50	10.70	\$0.00	\$44.31
4	75	\$26.67	\$10.50	10.70	\$0.00	\$47.87
5	85	\$30.23	\$10.50	10.70	\$0.00	\$51.43

Effective Date - 08/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.28	\$10.50	3.38	\$0.00	\$32.16
2	60	\$21.94	\$10.50	10.70	\$0.00	\$43.14
3	65	\$23.76	\$10.50	10.70	\$0.00	\$44.96
4	75	\$27.42	\$10.50	10.70	\$0.00	\$48.62
5	85	\$31.08	\$10.50	10.70	\$0.00	\$52.28

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE	02/01/2012	\$35.81	\$10.50	\$10.70	0.00	\$57.01
ROOFERS LOCAL 33	08/01/2012	\$36.81	\$10.50	\$10.70	0.00	\$58.01
	02/01/2013	\$37.81	\$10.50	\$10.70	0.00	\$59.01

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - ROOFER (Slate/Tile/Precast Concrete) - Local 33

Effective Date - 02/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.91	\$10.50	3.38	\$0.00	\$31.79
2	60	\$21.49	\$10.50	10.70	\$0.00	\$42.69
3	65	\$23.28	\$10.50	10.70	\$0.00	\$44.48
4	75	\$26.86	\$10.50	10.70	\$0.00	\$48.06
5	85	\$30.44	\$10.50	10.70	\$0.00	\$51.64

Effective Date - 08/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.41	\$10.50	3.38	\$0.00	\$32.29
2	60	\$22.09	\$10.50	10.70	\$0.00	\$43.29
3	65	\$23.93	\$10.50	10.70	\$0.00	\$45.13
4	75	\$27.61	\$10.50	10.70	\$0.00	\$48.81
5	85	\$31.29	\$10.50	10.70	\$0.00	\$52.49

Notes:

Apprentice to Journeyworker Ratio:**

SHEETMETAL WORKER	02/01/2012	\$40.79	\$9.82	\$17.34	2.04	\$69.99
SHEETMETAL WORKERS LOCAL 17 - A	08/01/2012	\$42.04	\$9.82	\$17.34	2.08	\$71.28
	02/01/2013	\$43.29	\$9.82	\$17.34	2.11	\$72.56

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SHEET METAL WORKER - Local 17-A

Effective Date - 02/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.32	\$9.82	3.74	\$0.00	\$29.88
2	40	\$16.32	\$9.82	3.74	\$0.00	\$29.88
3	45	\$18.36	\$9.82	7.45	\$1.07	\$36.70
4	45	\$18.36	\$9.82	7.45	\$1.07	\$36.70
5	50	\$20.40	\$9.82	8.17	\$1.15	\$39.54
6	50	\$20.40	\$9.82	8.42	\$1.16	\$39.80
7	60	\$24.47	\$9.82	9.60	\$1.32	\$45.21
8	65	\$26.51	\$9.82	10.32	\$1.40	\$48.05
9	75	\$30.59	\$9.82	11.76	\$1.57	\$53.74
10	85	\$34.67	\$9.82	12.69	\$1.72	\$58.90

Effective Date - 08/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$16.82	\$9.82	3.74	\$0.00	\$30.38
2	40	\$16.82	\$9.82	3.74	\$0.00	\$30.38
3	45	\$18.92	\$9.82	7.45	\$1.08	\$37.27
4	45	\$18.92	\$9.82	7.45	\$1.08	\$37.27
5	50	\$21.02	\$9.82	8.17	\$1.17	\$40.18
6	50	\$21.02	\$9.82	8.42	\$1.18	\$40.44
7	60	\$25.22	\$9.82	9.60	\$1.34	\$45.98
8	65	\$27.33	\$9.82	10.32	\$1.42	\$48.89
9	75	\$31.53	\$9.82	11.76	\$1.59	\$54.70
10	85	\$35.73	\$9.82	12.69	\$1.75	\$59.99

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27II

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Notes: Steps are 6 mos.						
Apprentice to Journeyworker Ratio:1:4						

SIGN ERECTOR	06/01/2009	\$24.81	\$7.07	\$5.90	0.00	\$37.78
PAINTERS LOCAL 35 - ZONE 2						

Apprentice - SIGN ERECTOR - Local 35 Zone 2

Effective Date - 06/01/2009

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.41	\$7.07	0.00	\$0.00	\$19.48
2	55	\$13.65	\$7.07	2.40	\$0.00	\$23.12
3	60	\$14.89	\$7.07	2.40	\$0.00	\$24.36
4	65	\$16.13	\$7.07	2.40	\$0.00	\$25.60
5	70	\$17.37	\$7.07	5.90	\$0.00	\$30.34
6	75	\$18.61	\$7.07	5.90	\$0.00	\$31.58
7	80	\$19.85	\$7.07	5.90	\$0.00	\$32.82
8	85	\$21.09	\$7.07	5.90	\$0.00	\$34.06
9	90	\$22.33	\$7.07	5.90	\$0.00	\$35.30

Notes:
Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

SPECIALIZED EARTH MOVING EQUIP < 35 TONS	06/01/2012	\$31.54	\$8.56	\$7.27	0.00	\$47.37
TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	08/01/2012	\$31.54	\$8.91	\$7.27	0.00	\$47.72
	12/01/2012	\$31.84	\$8.91	\$8.00	0.00	\$48.75

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2012	\$31.83	\$8.56	\$7.27	0.00	\$47.66
	08/01/2012	\$31.83	\$8.91	\$7.27	0.00	\$48.01
	12/01/2012	\$32.13	\$8.91	\$8.00	0.00	\$49.04
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550</i>	03/01/2012	\$51.58	\$8.42	\$11.60	0.00	\$71.60
	09/01/2012	\$52.58	\$8.42	\$11.60	0.00	\$72.60
	03/01/2013	\$53.58	\$8.42	\$11.60	0.00	\$73.60

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
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Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - SPRINKLER FITTER - Local 550

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$18.05	\$8.42	7.85	\$0.00	\$34.32
2	40	\$20.63	\$8.42	7.85	\$0.00	\$36.90
3	45	\$23.21	\$8.42	7.85	\$0.00	\$39.48
4	50	\$25.79	\$8.42	7.85	\$0.00	\$42.06
5	55	\$28.37	\$8.42	7.85	\$0.00	\$44.64
6	60	\$30.95	\$8.42	7.85	\$0.00	\$47.22
7	65	\$33.53	\$8.42	7.85	\$0.00	\$49.80
8	70	\$36.11	\$8.42	7.85	\$0.00	\$52.38
9	75	\$38.69	\$8.42	7.85	\$0.00	\$54.96
10	80	\$41.26	\$8.42	7.85	\$0.00	\$57.53

Effective Date - 09/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$18.40	\$8.42	7.85	\$0.00	\$34.67
2	40	\$21.03	\$8.42	7.85	\$0.00	\$37.30
3	45	\$23.66	\$8.42	7.85	\$0.00	\$39.93
4	50	\$26.29	\$8.42	7.85	\$0.00	\$42.56
5	55	\$28.92	\$8.42	7.85	\$0.00	\$45.19
6	60	\$31.55	\$8.42	7.85	\$0.00	\$47.82
7	65	\$34.18	\$8.42	7.85	\$0.00	\$50.45
8	70	\$36.81	\$8.42	7.85	\$0.00	\$53.08
9	75	\$39.44	\$8.42	7.85	\$0.00	\$55.71
10	80	\$42.06	\$8.42	7.85	\$0.00	\$58.33

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Notes:						
Steps are 850 hours						
Apprentice to Journeyworker Ratio: 1:1						

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2012	\$31.78	\$13.00	\$12.23	0.00	\$57.01
	09/01/2012	\$32.29	\$13.00	\$12.25	0.00	\$57.54
	03/01/2013	\$32.83	\$13.00	\$12.26	0.00	\$58.09
	09/01/2013	\$33.34	\$13.00	\$12.28	0.00	\$58.62
	03/01/2014	\$33.88	\$13.00	\$12.30	0.00	\$59.18
	09/01/2014	\$34.38	\$13.00	\$12.31	0.00	\$59.69
	03/01/2015	\$34.91	\$13.00	\$12.33	0.00	\$60.24
	09/01/2015	\$35.63	\$13.00	\$12.35	0.00	\$60.98
	03/01/2016	\$36.35	\$13.00	\$12.37	0.00	\$61.72

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$12.71	\$13.00	9.27	\$0.00	\$34.98
2	40	\$12.71	\$13.00	9.27	\$0.00	\$34.98
3	45	\$14.30	\$13.00	9.51	\$0.00	\$36.81
4	45	\$14.30	\$13.00	9.51	\$0.00	\$36.81
5	50	\$15.89	\$13.00	9.76	\$0.00	\$38.65
6	55	\$17.48	\$13.00	10.01	\$0.00	\$40.49
7	60	\$19.07	\$13.00	10.26	\$0.00	\$42.33
8	65	\$20.66	\$13.00	10.50	\$0.00	\$44.16
9	70	\$22.25	\$13.00	10.75	\$0.00	\$46.00
10	75	\$23.84	\$13.00	11.00	\$0.00	\$47.84

Effective Date - 09/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$12.92	\$13.00	9.28	\$0.00	\$35.20
2	40	\$12.92	\$13.00	9.28	\$0.00	\$35.20
3	45	\$14.53	\$13.00	9.53	\$0.00	\$37.06
4	45	\$14.53	\$13.00	9.53	\$0.00	\$37.06
5	50	\$16.15	\$13.00	9.77	\$0.00	\$38.92
6	55	\$17.76	\$13.00	10.02	\$0.00	\$40.78
7	60	\$19.37	\$13.00	10.27	\$0.00	\$42.64
8	65	\$20.99	\$13.00	10.52	\$0.00	\$44.51
9	70	\$22.60	\$13.00	10.77	\$0.00	\$46.37
10	75	\$24.22	\$13.00	11.02	\$0.00	\$48.24

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Notes:

Apprentice to Journeyworker Ratio:1:1

TERRAZZO FINISHERS BRICKLAYERS LOCAL 3 - MARBLE & TILE	03/01/2012	\$45.50	\$10.18	\$17.25	0.00	\$72.93
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Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile

Effective Date - 03/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.75	\$10.18	17.25	\$0.00	\$50.18
2	60	\$27.30	\$10.18	17.25	\$0.00	\$54.73
3	70	\$31.85	\$10.18	17.25	\$0.00	\$59.28
4	80	\$36.40	\$10.18	17.25	\$0.00	\$63.83
5	90	\$40.95	\$10.18	17.25	\$0.00	\$68.38

Notes:

Steps are 800 hrs.

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER LABORERS - FOUNDATION AND MARINE	12/01/2011	\$33.05	\$7.10	\$12.60	0.00	\$52.75
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EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - TEST BORING DRILLER (Laborers Foundation & Marine)

Effective Date - 12/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$19.83	\$7.10	12.60	\$0.00	\$39.53
2	70	\$23.14	\$7.10	12.60	\$0.00	\$42.84
3	80	\$26.44	\$7.10	12.60	\$0.00	\$46.14
4	90	\$29.75	\$7.10	12.60	\$0.00	\$49.45

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER HELPER LABORERS - FOUNDATION AND MARINE	12/01/2011	\$31.77	\$7.10	\$12.60	0.00	\$51.47
TEST BORING LABORER LABORERS - FOUNDATION AND MARINE	12/01/2011	\$31.65	\$7.10	\$12.60	0.00	\$51.35

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DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification **Effective Date** **Base Wage** **Health** **Pension** **Supplemental Unemployment** **Total Rate**

Apprentice - TEST BORING LABORER (Laborers Foundation & Marine)

Effective Date - 12/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$18.99	\$7.10	12.60	\$0.00	\$38.69
2	70	\$22.16	\$7.10	12.60	\$0.00	\$41.86
3	80	\$25.32	\$7.10	12.60	\$0.00	\$45.02
4	90	\$28.49	\$7.10	12.60	\$0.00	\$48.19

Notes:

Apprentice to Journeyworker Ratio:1:3

TRACTORS/PORTABLE STEAM GENERATORS OPERATING ENGINEERS LOCAL 4	06/01/2012	\$39.47	\$10.00	\$12.65	0.00	\$62.12
	12/01/2012	\$40.09	\$10.00	\$12.65	0.00	\$62.74
	06/01/2013	\$40.86	\$10.00	\$12.65	0.00	\$63.51
	12/01/2013	\$41.64	\$10.00	\$12.65	0.00	\$64.29
TRAILERS FOR EARTH MOVING EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	06/01/2012	\$32.12	\$8.56	\$7.27	0.00	\$47.95
	08/01/2012	\$32.12	\$8.91	\$7.27	0.00	\$48.30
	12/01/2012	\$32.42	\$9.07	\$8.00	0.00	\$49.49
TUNNEL WORK - COMPRESSED AIR LABORERS (COMPRESSED AIR)	12/01/2011	\$44.08	\$7.10	\$13.00	0.00	\$64.18
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) LABORERS (COMPRESSED AIR)	12/01/2011	\$46.08	\$7.10	\$13.00	0.00	\$66.18
TUNNEL WORK - FREE AIR LABORERS (FREE AIR TUNNEL)	12/01/2011	\$36.15	\$7.10	\$13.00	0.00	\$56.25
TUNNEL WORK - FREE AIR (HAZ. WASTE) LABORERS (FREE AIR TUNNEL)	12/01/2011	\$38.15	\$7.10	\$13.00	0.00	\$58.25

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dls or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
VAC-HAUL TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	06/01/2012	\$31.54	\$8.56	\$7.27	0.00	\$47.37
	08/01/2012	\$31.54	\$8.91	\$7.27	0.00	\$47.72
	12/01/2012	\$31.84	\$8.91	\$8.00	0.00	\$48.75
WAGON DRILL OPERATOR LABORERS - ZONE 1	06/01/2012	\$32.05	\$7.10	\$12.45	0.00	\$51.60
	12/01/2012	\$32.55	\$7.10	\$12.45	0.00	\$52.10
	06/01/2013	\$33.30	\$7.10	\$12.45	0.00	\$52.85
	12/01/2013	\$34.05	\$7.10	\$12.45	0.00	\$53.60
	06/01/2014	\$34.80	\$7.10	\$12.45	0.00	\$54.35
	12/01/2014	\$35.55	\$7.10	\$12.45	0.00	\$55.10
	06/01/2015	\$36.30	\$7.10	\$12.45	0.00	\$55.85
	12/01/2015	\$37.05	\$7.10	\$12.45	0.00	\$56.60
	06/01/2016	\$37.80	\$7.10	\$12.45	0.00	\$57.35
	12/01/2016	\$38.80	\$7.10	\$12.45	0.00	\$58.35
WASTE WATER PUMP OPERATOR OPERATING ENGINEERS LOCAL 4	06/01/2012	\$39.84	\$10.00	\$12.65	0.00	\$62.49
	12/01/2012	\$40.46	\$10.00	\$12.65	0.00	\$63.11
	06/01/2013	\$41.24	\$10.00	\$12.65	0.00	\$63.89
	12/01/2013	\$42.02	\$10.00	\$12.65	0.00	\$64.67
WATER METER INSTALLER PLUMBERS & GASFITTERS LOCAL 12	03/01/2012	\$46.81	\$9.32	\$13.29	0.00	\$69.42
	09/01/2012	\$48.06	\$9.32	\$13.29	0.00	\$70.67
	03/01/2013	\$49.31	\$9.32	\$13.29	0.00	\$71.92
Outside Electrical - East						
CABLE TECHNICIAN (Power Zone) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	08/29/2011	\$27.11	\$6.70	\$1.50	0.00	\$35.31
CABLEMAN (Underground Ducts & Cables) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	08/29/2011	\$38.41	\$6.70	\$1.00	0.00	\$46.11
DRIVER / GROUNDMAN CDL OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	08/29/2011	\$31.63	\$6.70	\$2.50	0.00	\$40.83
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104	08/29/2011	\$24.85	\$6.70	\$1.50	0.00	\$33.05

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L., ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

Issue Date: 07/09/2012

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 **City/Town:** NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/29/2011	\$38.41	\$6.70	\$5.00	0.00	\$50.11
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/29/2011	\$33.89	\$6.70	\$2.75	0.00	\$43.34
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/29/2011	\$24.85	\$6.70	\$1.00	0.00	\$32.55
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/29/2011	\$20.34	\$6.70	\$0.75	0.00	\$27.79
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	08/29/2011	\$45.19	\$6.70	\$7.86	0.00	\$59.75

Apprentice - LINEMAN (Outside Electrical) - East Local 104

Effective Date - 08/29/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$27.11	\$6.70	2.11	\$0.00	\$35.92
2	65	\$29.37	\$6.70	2.36	\$0.00	\$38.43
3	70	\$31.63	\$6.70	2.86	\$0.00	\$41.19
4	75	\$33.89	\$6.70	3.36	\$0.00	\$43.95
5	80	\$36.15	\$6.70	3.86	\$0.00	\$46.71
6	85	\$38.41	\$6.70	4.36	\$0.00	\$49.47
7	90	\$40.67	\$6.70	5.36	\$0.00	\$52.73

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/18/2011	\$25.94	\$4.18	\$2.78	0.00	\$32.90
	07/16/2012	\$26.33	\$4.18	\$2.79	0.00	\$33.30

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DEVAL L. PATRICK
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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton
Contract Number: 13-07 City/Town: NEWTON
Description of Work: Electrical Improvements at Various Schools and the Gath Pool Facility

Job Location: Various Locations

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/18/2011	\$24.42	\$4.18	\$2.73	0.00	\$31.33
	07/16/2012	\$24.78	\$4.18	\$2.74	0.00	\$31.70
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/18/2011	\$24.42	\$4.18	\$2.73	0.00	\$31.33
	07/16/2012	\$24.78	\$4.18	\$2.74	0.00	\$31.70
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/01/2009	\$16.59	\$2.42	\$0.00	0.00	\$19.01
This classification applies only to the trimming of branches on and around utility lines.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	02/01/2009	\$14.64	\$2.42	\$0.00	0.00	\$17.06
This classification applies only to the trimming of branches on and around utility lines.						

Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours) unless otherwise specified.

- * Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.
- ** Multiple ratios are listed in the comment field.
- *** APP to JM; 1:1, 2:2, 3:3, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.
- **** APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

Issue Date: 07/09/2012

Wage Request Number: 20120705-022

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Prime Contractor

Subcontractor

Subcontractor
List Prime Contractor;

Employer Signature: _____

Print Name & Title:

[illegible]

**ELECTRICAL RENOVATION PROJECT
NEWTON 5 SCHOOLS AND GATH POOL**

Prepared For

**CITY OF NEWTON
PUBLIC BUILDINGS DEPARTMENT
52 Elliot Street
Newton Highlands, Massachusetts 02461**

PART B

Specifications

DIVISION 1
SECTION 00840
INSURANCE REQUIREMENTS

1.01 GENERAL

- A. This section specifies the Owner's insurance requirements and relates to the General Conditions of the Contract for Construction and the Supplement to the Standard Form of Agreement Between Owner and Contractor.
- B. Provisions of the General Conditions of the Contract for Construction and Supplement to the Standard Form of Agreement Between Owner and Contractor which are not modified by the following insurance requirements remain in full effect.
- C. The Owner, at its own expense, will carry a Builder's Risk endorsement on its property insurance policy. The Builder's Risk endorsement on its property insurance policy. The Builder's Risk endorsement will cover all materials on the project site which may, at the time of any damage, be owned by the Contractor, but which are or will become part of the project.

1.02 INSURANCE REQUIREMENTS

- A. The insurance required shall be written for not less than the limits of liability required by law or the following limits, whichever is greater:

State and Federal Workmen's Compensation Statutory	
Employer's Liability (Each Accident)\$ 500,000
Benefits required by Union ContractAs required

GENERAL LIABILITY*

General Liability - Bodily Injury/Death Each Occurrence\$1,000,000
General Liability - Bodily Injury Aggregate	\$3,000,000
General Liability - Property Damage Each Occurrence\$1,000,000
General Liability - Property Damage Aggregate\$3,000,000

General Liability shall include coverage for the following:

- Comprehensive Form
- Premises/Operations Liability
- Explosion, Collapse and Underground (XCU)
- Products/Completed Operations
- Contractual Liability
- Independent Contractors
- Broad Form Property Damage
- Personal Injury Including Libel and Slander Coverage
- Broad Form CGL Endorsement

AUTOMOBILE LIABILITY**

Comp. Automobile Liability - Bodily Injury Per Person.....	\$ 1,000,000
Comp. Automobile Liability - Bodily Injury Per Accident	\$ 1,000,000
Comp. Automobile Liability - Property Damage	\$ 1,000,000

EXCESS LIABILITY (UMBRELLA COVERAGE)

Bodily Injury and Property Damage Combined Each Occurrence	\$ 2,000,000
Bodily Injury and Property Damage Combined Aggregate.....	\$ 2,000,000

- B. Exclusions: The Owner's property insurance shall not cover tools, equipment, shoring, staging, forms, temporary buildings or other equipment owned or rented by the Contractor, its Subcontractors, or any worker.
- C. Insurance Certificates: The Contractor and all subcontractors who are required to provide insurance under the Contract shall provide accurate and bona fide "Certificates of Insurance" issued by a responsible agent of the insurance company.
1. Certificate Content: Such "Certificates of Insurance" shall clearly indicate the insurance coverage provided including all riders and limits specified. Each "Certificate of Insurance" shall be accompanied by a sworn and duly notarized statement from the responsible agent of the insurance company issuing the Certificate clearly stating that all insurance specified and required by the Contract Documents is provided and in force, and also a clear statement of all exceptions and deviations, if any, from the Contract Document insurance requirements.
 2. Responsibility: The insurance agent issuing and authorizing the "Certificate of Insurance" shall be responsible and liable for the accuracy and validity of the "Certificate of Insurance". Each insured party shall certify by sworn and duly notarized statement that the "Certificates of Insurance" issued for them are bona fide.
 3. Disclaimers Prohibited: "Certificates of Insurance" shall not contain any disclaimers such as: "This Certificate is issued as a matter of information only and confers no rights upon the certificate holder. This Certificate does not amend, extend, or alter the coverage afforded by the policies listed below." Disclaimers are not acceptable.
 4. Certificates of Insurance Can Be Relied Upon: Parties receiving "Certificates of Insurance" shall be entitled to rely upon the "Certificates of Insurance" and shall have the right to claim the benefits and protection provided by the insurance as it applies to them.
 5. Alternate to "Certificates of Insurance": Instead of providing the "Certificates of Insurance" and the sworn statements required above, the insured may provide bona fide and accurate copies of all insurance policies and riders accompanied by a sworn and duly notarized statement from the insured that the policies, riders, and documents submitted are bona fide and valid, and that parties receiving the insurance documents may rely on the documents as satisfaction of the Contract insurance requirements.

END OF SECTION

DIVISION 1
SECTION 01000
GENERAL REQUIREMENTS

01010 SUMMARY OF WORK

1.01 CONTRACT DOCUMENTS

The general provisions of the Contract Documents and General Conditions apply to the work specified in this section.

1.02 SPECIFICATION ARRANGEMENT

Titles to and arrangements of sections and paragraphs in these specifications are used merely for convenience and shall not be taken as a correct or complete segregation of the several categories of materials, equipment and labor, nor as an attempt to outline or define jurisdictional procedures.

1.03 INTENT

The entire work provided for in these technical specifications and on the Drawings shall be constructed and finished in every respect in a good workmanlike and substantial manner. All parts necessary for the proper and complete execution of the work whether the same may have been specifically mentioned or not, or indicated in a manner corresponding with the rest of the work shall be provided as if the same were particularly described and specifically provided for herein. It is not intended that the Drawings shall show every detailed piece of material or equipment, but such parts and pieces as may be in accordance with the best practices and regulatory requirements, even though not shown, shall be furnished and installed. All materials and equipment shall be new, unless specifically stated otherwise in these Contract Documents.

1.04 SCOPE

The work required by these specifications shall include furnishing all labor, skill, supervision, tools, construction plant, equipment and materials and performing all operations necessary for the properly completed contract work as shown on the Drawings, as mentioned in these specifications, and as evidently required, to the complete satisfaction of the Engineer.

1.05 GENERAL DESCRIPTION OF WORK:

- B. This project includes Electrical improvements at the five (5) Newton schools and Gath Pool including but not limited to:
1. New generators (sized to maintain heating only) and life safety emergency battery units, combination emergency and exit signs, and exit signs at Burr and Bigelow Schools.
 2. Upgrade/replace existing panelboards and disconnects at Countryside, Franklin and Spaulding Schools.
 3. Upgrade/replace existing electrical service and switchgear at Gath Pool.
 4. Upgrade/replace existing panelboards and disconnects at Gath Pool.

1.06 PRE-CONSTRUCTION CONFERENCE

1. Within ten days of the contract execution and prior to the start of construction there will be a pre-construction meeting between the Contractor, representatives of the Owner and the Engineer to discuss methods of construction and completion of the project.
2. Representatives of the following shall be required to attend this conference:
 - a. Owner
 - b. Engineer
 - c. General Contractor
 - d. All Sub-Contractors
3. Contractors shall make specified pre-construction submissions including the following, if not already submitted:
 - a. Typed list of sub-contractors, with addresses and telephone numbers, and the name of principal contract.
 - b. Certificate of Insurance
 - c. Performance and Payment Bonds
 - d. Construction Schedule
 - e. Schedule of Values
 - f. Schedule of Monthly Construction Payments
4. Agenda will include the following items:
 - a. Tentative construction schedule
 - b. Critical work sequencing
 - c. Designation of responsible personnel
 - d. Submittal of shop drawings, project data and samples
 - e. Processing applications for payment
 - f. Procedures for maintenance of record documents
 - g. Procedures for field changes, change estimates, change orders, etc.
 - h. Use of premises
 - i. Location and maintenance of temporary storage buildings, field offices, etc.
 - j. Major equipment deliveries and priorities
 - k. Site and building security procedures
 - l. Procedures for submitting Prevailing Wage Rates sheets.

01011

CONTRACT INCLUDES (LIST OF DRAWINGS)

T0.00 TITLE SHEET

MECHANICAL

BM3.0 BIGELOW SCHOOL - MECHANICAL GROUND FLOOR DEMOLITION
AND NEW WORK PLANS

RM3.0 BURR SCHOOL - MECHANICAL - MECHANICAL FIRST FLOOR
DEMOLITION AND NEW WORK PART PLANS

ELECTRICAL

E0.00 NEWTON SCHOOLS - ELECTRICAL LEGENDS, NOTES &
ABBREVIATIONS

E8.00 NEWTON SCHOOLS - ELECTRICAL DETAILS

E8.01	NEWTON SCHOOLS - ELECTRICAL DETAILS
BE2.0	BIGELOW SCHOOL - ELECTRICAL LIGHTING GROUND FLOOR NEW WORK PLAN
BE2.1	BIGELOW SCHOOL - ELECTRICAL LIGHTING FIRST FLOOR NEW WORK PLAN
BE2.2	BIGELOW SCHOOL - ELECTRICAL LIGHTING SECOND FLOOR NEW WORK PLAN
BE3.0	BIGELOW SCHOOL - ELECTRICAL POWER GROUND FLOOR DEMOLITION AND NEW WORK PLANS
BE7.0	BIGELOW SCHOOL - ELECTRICAL ONE LINE RISER DIAGRAM
CE3.0	COUNTRYSIDE ELEMENTARY - ELECTRICAL POWER BASEMENT FLOOR PLAN
CE3.1	COUNTRYSIDE ELEMENTARY - ELECTRICAL POWER FIRST FLOOR PLAN
CE3.2	COUNTRYSIDE ELEMENTARY - ELECTRICAL POWER SECOND FLOOR PLAN
CE9.0	COUNTRYSIDE ELEMENTARY - ELECTRICAL SCHEDULE
FE3.0	FRANKLIN ELEMENTARY - ELECTRICAL POWER BASEMENT FLOOR PLAN
FE3.1	FRANKLIN ELEMENTARY - ELECTRICAL POWER FIRST FLOOR PLAN
FE3.2	FRANKLIN ELEMENTARY - ELECTRICAL POWER SECOND FLOOR PLAN
FE9.0	FRANKLIN ELEMENTARY - ELECTRICAL SCHEDULE
RE2.0	BURR SCHOOL - ELECTRICAL LIGHTING FIRST AND SECOND FLOOR NEW WORK PLAN
RE3.0	BURR SCHOOL - ELECTRICAL FIRST ALARM FIRST FLOOR DEMOLITION AND NEW WORK PART PLANS
RE4.0	BURR SCHOOL - ELECTRICAL FIRE ALARM FIRST FLOOR NEW WORK PART PLAN
RE7.0	BURR SCHOOL - ELECTRICAL ONE LINE RISER DIAGRAM
SE3.0	SPAULDING SCHOOL - ELECTRICAL POWER BASEMENT PLAN
SE3.1	SPAULDING SCHOOL - ELECTRICAL POWER FIRST FLOOR PLAN
SE9.0	SPAULDING SCHOOL - ELECTRICAL SCHEDULE

01012 ORDER OF AND COMPLETION OF WORK

- 1.01 Upon the award of the contract, the Contractor shall commence work immediately, carry it on with all reasonable and proper activity and dispatch, give all notices, take out all permits and pay all charge, fees and rates therefor, and bring the work to entire completion within the period of time specified in the contract. "Entire Completion" as herein used, shall be construed as meaning the completion of all work as called for by these specifications and the contract executed in accordance herewith and the date when such completion takes place will be decided by the Engineer.

01013 PROTECTION - IN GENERAL

- 1.01 The Contractor is to cover and protect his work and materials from all damage during the process of the work and deliver the whole in a clean perfect condition.

01014 CONSTRUCTION RISKS

- 1.01 The Contractor will understand that the materials, work in place and equipment, are entirely at his risk, including loss by theft or fire during the construction period, and he will be held responsible and liable for its safety.

01015 SANITARY ACCOMMODATIONS

- 1.01 Make arrangements with the awarding authority for use of a designated toilet.

01016 UTILITIES

- 1.01 Water and electric power shall be available from existing sources where Contractor's use is not excessive and does not interfere with normal use of the buildings. Where existing utilities of the facilities are not adequate or cannot be used, the Contractor is responsible for providing alternative sources, the cost of which is to be included in bid price. The use of the facility's utilities shall be coordinated through the Engineer.
- 1.02 Fuel oil, temporary lighting, gas and other utilities (except for heating the school) shall be provided by the Contractor, the cost of which is to be included in the Bid Price.
- 1.03 The Contractor shall be allowed the use of a designated toilet room and shall clean and sanitize the toilet room at the end of each work day.
- 1.04 The Contractor shall provide all wiring, cables, hoses, safety devices, switches, etc., necessary for the utilities used by the Contractor and remove the same upon completion.
- 1.05 The Contractor shall be responsible for all materials, equipment and the associated costs to provide temporary heat to the school, in the event of delays.

01017 RECORD DRAWINGS

- 1.01 The Contractor shall maintain at the job site, at all times, a complete and separate set of black line prints of the Drawings on which he shall mark clearly, accurately, and promptly as the work progresses, any changes in the work made by change orders or other instructions issued by the Engineer. These drawings shall be used daily to record the progress of the work by coloring in the various pipes, equipment and associated appurtenances when installed. This progress shall incorporate both the above stated changes together with all other deviations from the design, whether resulting from the job conditions encountered in the field or from any other cause. Principal dimensions of all concealed work and valve numbers shall be recorded as applicable.
- 1.02 The marked-up prints shall be used as a guide in determining the progress of work installed. The Engineer will inspect these prints periodically and if found to be inaccurate or incomplete, they shall be corrected immediately.
- 1.03 At completion of work these marked-up prints shall be the basis of the preparation of the final record drawings. Each drawing shall be marked "RECORD AS BUILT DRAWINGS" and dated when printed. Two complete and reproducible sets of as-built drawings must be submitted before final acceptance of the work. The cost of preparing the record drawings shall be borne by the Contractor.

01018 ENGINEERING (Refer to "General Specifications")

01019 OFFICE (none required)

01020 VISITATION TO SITES

- 1.01 All bidders shall, before submitting a bid, visit the sites to familiarize themselves with existing conditions. Lack of knowledge of on-site conditions shall not be cause for changes to the contract values.

01021 DISPOSAL OF WASTE MATERIALS

- 1.01 The Contractor shall be responsible for the removal of all waste material and equipment from the site.
- 1.02 The Contractor shall be responsible for the removal of all hazardous materials and improperly licensed disposal sites, disposal and transportation permits.

01022 BUILDING SECURITY

- 1.01 The Owner will provide security for the building, however, it shall be the responsibility of the Contractor to secure all exit doors in the area where work is to be performed, coordinating same with the chief custodian or an assigned representative of the Owner. The Owner will not provide security or be responsible for the Contractor's property, fixtures, fittings, tools, equipment, etc.

01023 ACCESS TO BUILDING

- 1.01 The buildings will be opened during regular working hours only. Exceptions to this clause may be made by mutual agreement between the Owner and Contractor in the initial phase of the project.

01024 PUBLIC PROTECTION

- 1.01 While the work is in progress, erect safe barricades to effectively protect persons from injury.
- 1.02 Protect all ground areas where stationary equipment is placed and protect wall areas from hoisting or material conveyers.

01025 CUTTING & PATCHING

1.01 GENERAL REQUIREMENTS

- a) All of the contract documents including General and Supplementary Conditions and Division 1 General Requirements, apply to the work of this Section.

1.02 WORK INCLUDED

- a) The intent of this Section is to describe, in general, procedures for performance of minor alterations, minor removals, and cutting and patching including:
- 1) All necessary cutting, coring, drilling, grouting, and patching to fit together the several parts of the work including repairs in kind of disturbed existing surfaces.
- 2) Where conflicts exist between the requirements specified herein and those of the Technical Trade Sections, those of the Trade Sections shall prevail.
- b) The Contractor shall be responsible for all cutting, coring, drilling, grouting, fitting and patching of the work that may be required to make its several parts come together properly and fit, as shown upon, or reasonably implied by, Drawings and Specifications for completed structure, and he shall make good after them as Engineer may direct.
- c) Expense caused by defective or ill-timed work shall be borne by the Contractor.

1.03 CUTTING AND PATCHING OPERATIONS

- a) Patch and refinish to match adjacent work in quality and appearance at locations where installed work has been installed and requires reworking to accommodate other work, or has been damaged.
- b) Patch and match using skilled mechanics. The quality of patched or extended work shall be not less than that specified for new work.
- c) Patch or replace any portion of a finished surface which is found to be damaged, lifted, discolored, or shows other imperfections, with matching material.
 - 1) Provide adequate support or substrate prior to patching the finish.
 - 2) Refinish patched portions of painted or coated surfaces in a manner to produce uniform color and texture over entire surface.
 - 3) When surface finish cannot be matched, refinish the entire surface to the nearest intersections.
- d) Make the transition as smooth and workmanlike as possible. Patched work shall match adjacent work in texture and appearance so that the patch or transition is invisible to the naked eye at a distance of five feet.

END OF SECTION

DIVISION 1

SECTION 01100

SPECIAL CONDITIONS

PART 1 - GENERAL

1.01 RESPONSIBILITY AND COMPLIANCE

- A. All requirements set forth under this Section are directed to the General Contractor.
- B. Be responsible for arranging for facilities as specified herein and as required for proper and expeditious prosecution of the work. Pay costs for such general services and temporary facilities, except as otherwise specified, until final acceptance of the work, and remove same at completion of work.
- C. Comply with applicable OSHA, state, and municipal regulations and requirements for services and facilities required under this SECTION, and in performance of all requirements of this Contract.

1.02 COORDINATION OF THE WORK

- A. The Contractor shall coordinate all work with all adjacent work and shall cooperate with all other trades so as to facilitate general progress of the work. Each trade shall afford all other trades every reasonable opportunity for the installation of their respective work and for the storage of their materials and equipment. The Contractor shall be responsible for coordination.
- B. The Contractor shall assume responsibility for the correctness and adequacy of his work. The Contractor shall be responsible for and pay for all damages done by his work or his workmen.
- C. The Contractor shall cooperate with, and provide access and working area to other Owner's contractors for the performance of specific work assigned to them.

1.03 PROJECT MEETINGS

- A. The Contractor will be required to meet with the Owner, Engineer and the Owner's representatives, at the site of the work, at regular intervals during the course of the contract for purposes of progress review, coordination of shop schedules, sample submittals, and any other items of work requiring such coordination. The dates of such meetings shall be as established by the Engineer and mutually agreed upon by the Contractor, the Engineer, and the Owner's Representative.

1.04 EXISTING BUILDING CONDITIONS

- A. Before ordering any materials or doing any work, verify all measurements and existing building conditions and be responsible for the correctness of same. No extra charge or compensation will be allowed on account of difference between actual dimensions and the measurements indicated on the Drawings; any difference which may be found shall be submitted to the Engineer in writing for consideration before proceeding with the work.
- B. Building to be occupied during contract schedule.

1.05 PROTECTION OF EXISTING CONDITIONS

- A. Take all proper precautions to protect the Owner and adjoining property from injury and unnecessary interference; and replace or put in good condition any existing items which are damaged or injured in carrying out the work, unless designated to permanently be removed or demolished.
- B. Keep all access drives and walks clear of debris during building operations. Repair streets, drives, curbs, sidewalks, poles, and the like, where disturbed by building operation and leave them in as good condition after completion of the work as before operations started. Floors, stairwells, and corridors must be kept clean of debris and means of egress maintained.

1.06 TESTS AND INSPECTION

- A. Make, or have made, such tests and inspections on workmanship and materials as may be required by the building code, state or municipal laws, or as called for under the various SECTIONS of this Specification.
- B. Bear all expense to such tests and inspections, unless otherwise specified under the various SECTIONS of the Specifications and furnish all labor, tools, instruments, water, temporary power and light, construction, and equipment necessary for these tests and inspection. Furnish records of all tests and inspections to the Engineer. Remove all temporary work, materials, and equipment upon completion of tests and inspections.
- C. Where, the various SECTIONS of the Specifications, inspections and testing of materials, processes, and the like is called for, the selection of bureaus, laboratories, and/or agencies for such inspection and testing shall be subject to the approval of the Engineer.
- D. Should any material or work be found, after testing or inspections, to be defective or inferior, remove and replace such material and/or work with new sound materials and/or work as approved by the Engineer, and bear all costs thereof.

1.07 FIRE PROTECTION AND PREVENTION

- A. Comply with the following minimum requirements for fire prevention:
 - 1. Provide the services of a City of Newton Firefighter during all welding/cutting operations performed within the school (i.e., demolition).
 - 2. Provide sufficient quantity of carbon dioxide fire extinguishers in all areas of work.
 - 3. Do not permit an accumulation of inflammable rubbish to stay in the building overnight.
 - 4. Store no more than one gallon, in an approved safety can or sealed container, of any volatile inflammable liquid in any portion of the building.
 - 5. Keep all used paint rags in a can with sufficient water to cover.
 - 6. Make arrangements for periodic inspection by local fire protection authorities and insurance underwriters' inspections. Cooperate with said authorities to facilitate proper inspection of the premises. Comply with all applicable laws and ordinances and with the Owner's fire prevention requirements.
 - 7. Ensure that tarpaulins that may be used during construction of work are made of material which is resistant to fire, water, and weather, are U.L. approved, and comply with FS-CCC-D-746.

1.08 ACCIDENT PREVENTION

- A. Comply with all federal, state and municipal recommendations and requirements for safety, and accident prevention, and those of the Associated General Contractors of America, and the American Standards Association Standard A10.2. Ensure that the field superintendent conducts regular, frequent inspections of the site for compliance with safety regulations.
- B. Neither the Owner nor the Engineer shall be responsible for providing a safe working place for the Contractor, contractors, or their employees, or any individual responsible to them for the work.

1.09 WELDING AND CUTTING

- A. Where electric or gas welding or cutting work is done above or within ten (10) feet of combustible material or above space that may be occupied by persons, use interposed shields of incombustible material to protect against fire damage or injury due to sparks and hot metal.
- B. Place tank supplying gases for gas welding or cutting at no greater distance from the work than is necessary for safety, securely fastened and maintained in an upright position where practicable. Such tanks, when stored for use, shall be remote from any combustible material and free from exposure to the rays of the sun or high temperatures.
- C. Maintain suitable fire extinguishing equipment near all welding and cutting operations. When operations cease for the noon hour or at the end of the day, thoroughly wet down the surroundings adjacent to welding and cutting operations.
- D. Station a workman equipped with suitable fire extinguishing equipment near welding and cutting operations to see that sparks do not lodge in floor cracks or pass through floor or wall openings or lodge in any combustible material. Keep the workman at the source of work which offers special hazards for thirty (30) minutes after the job is completed to make sure that smoldering fires have not been started.
- E. Place a qualified electrician in charge of installing and repairing electric or arc welding equipment.
- F. All welding and cuttings shall be performed by certified welders.
- G. No welding and cutting is permitted during school hours.

1.10 OVERLOADING

- A. Do not permit materials and fabricated work to be stacked on, or be transported over, floor and roof construction that would stress any of said construction beyond the designed live loads.

1.11 RUBBISH REMOVAL

- A. Ensure that each workman engaged upon the work bears his full responsibility for cleaning up during and immediately upon completion of his work, and removes all rubbish, waste, tools, equipment, and appurtenances caused by and used in the execution of his work, but this shall in no way be construed to relieve the Contractor of his primary responsibility for maintaining the building and site clean and free of debris, leaving all work in a clean and proper condition satisfactory to the Engineer and/or Owner.
- B. Do not permit rubbish to be thrown from the windows of the building.
- C. Immediately after unpacking, all packing materials, case lumber, excelsior, wrapping or other rubbish, flammable or otherwise, shall be collected and removed from the building and premises.

1.12 BLASTING

- A. No blasting will be permitted.

1.13 WORK AREAS, STORAGE, ACCESS, AND PARKING

- A. The Contractor's work areas shall be as designated on the Drawings, and shall be strictly adhered to. Access to the existing building shall be kept free of all obstructions at all times. Assume full responsibility for trespass on and/or damage to other property by any person employed on the project.
- B. A storage area for construction materials will be designated for the use of the Contractor. Storage of materials beyond the designated area will not be permitted.
- C. Vehicular access to the site, and parking for employees' vehicles shall be restricted only to the specific areas designated by the Owner.

1.14 TEMPORARY SCAFFOLDING AND CONVEYANCES

- A. Furnish, install, maintain, remove and pay for all temporary staging and planking, ladders, hoisting (including operator), rigging, and safety devices for all trades.
- B. Staging shall be approved design, erected and removed by experienced stage builders and shall have all accident prevention devices required by state and local laws.
- C. Permit no materials to be passed through the finished openings of exterior walls, without first providing protection to the opening thereof of a type as approved by the Engineer. Be responsible, and bear all costs, for repairs and/or replacement of damaged work caused thereby.

1.15 TEMPORARY PROTECTION

- A. Furnish, erect, and maintain for the duration of the work period, temporary fire-retardant, dustproof coverings as required to prevent the spread of dust beyond the immediate area where work is being performed.
 - 1. No painting during school hours.
 - 2. No cutting or welding during school hours.
 - 3. No rigging of equipment during school hours.
 - 4. No power shutdowns during school hours.
 - 5. No abatement and/or demolition during school hours.
- B. Contractor shall cover and protect all school furnishings and equipment in each classroom while work is performed in that classroom.

1.16 ADVERTISING MATTER

- A. Signs or advertisements will not be allowed on building enclosure or premises, unless written approval has been obtained from the Owner.
- B. Advertising matter shall not appear on equipment, unless so specified. However, nameplates of a nominal size and inconspicuous nature will be permitted.

1.17 MUNICIPAL POLICE AND FIRE DEPARTMENT SERVICES

- A. Make all necessary arrangements with the municipal police and fire departments in advance of times when regular off-duty, or reserve police officers or firemen will be needed for traffic control protection or fire watch, due to the operations performed under this Contract. Pay police officers and firemen at the prevailing wage rates in the municipality for such services. Extend the Workingmen's Compensation

Insurance and Employer's Liability Insurance, required under the General Contract to cover police and firemen used on the project. Fire watch will be required during demolition of existing feed tank.

1.18 USE AND OCCUPANCY PRIOR TO ACCEPTANCE BY THE OWNER

- A. The building will be occupied, for normal function thereof, during the stipulated construction period.
- B. The Owner will, prior to any such partial occupancy, give notice to the Contractor thereof and such occupancy shall be predicated upon the following items:
 - 1. In the case of partial occupancy prior to the stipulated completed date, the Owner shall secure endorsement from the insurance carrier and consent of the surety permitting occupancy of the building or use of the project during the remaining period of construction.
 - 2. In the case of partial occupancy after the stipulated completion date, the Contractor shall extend all the necessary insurance coverage as stipulated until the date of final acceptance of the project is issued by the Owner. It is further noted that the use and occupancy prior to the formal acceptance does not relieve the Contractor of his responsibility to maintain the insurance coverage as required under the SUPPLEMENTARY CONDITIONS.
 - 3. The one year guarantee period called for in the CONTRACT DOCUMENTS shall not commence until the date of Substantial Completion of all work under the Contract, as determined by the Engineer.
 - 4. The occupancy of the building or any portion thereof by the Owner shall not constitute an acceptance of work not performed in accordance with the CONTRACT DOCUMENTS or relieve the Contractor of liabilities, to perform any work required by the Contract, but not completed at the time of occupancy.

1.19 GLASS BREAKAGE

- A. The contractor shall be responsible for all breakage of glass as a direct or indirect result of his work or actions of his workmen, from the time the construction operations commence until the project is complete. Replace all broken glass and deliver the building with all glazing intact and clean.

1.20 DAMAGE TO EXISTING SURFACES

- A. The Contractor shall be fully responsible for any damage to existing surfaces caused by the operations of this Contract, and shall correct all such damage to the Owner's satisfaction, at no additional cost to the Contract.

1.21 FINAL CLEANING

- A. Before the final inspection, thoroughly clean the entire exterior and interior areas of the building where construction work has been performed, the immediate surrounding areas, and corridors, stairs, halls, storage areas, temporary offices and toilets, including the following:
 - 1. Remove all construction facilities, debris, and rubbish from the Owner's property and legally dispose of same beyond the site limits.
 - 2. Sweep, dust, wash, and polish all finished surfaces. This includes cleaning of the work of all finished trades where needed, whether or not cleaning for such trades is included in their respective SECTIONS.

END OF SECTION

DIVISION 1
SECTION 01300
REMOVAL OF EXISTING FACILITIES

PART 1 - GENERAL

1.01 CONTRACT DOCUMENTS

- A. The general provisions of the Contract Documents and General Requirements apply to the work in this section.

1.02 DESCRIPTION

- A. The work covered under this section includes furnishing of all labor and equipment and coordinating the efforts of the contractors in connection with performing the required demolition/removal indicated on the Drawings, and in accordance with these Specifications.
- B. This section is intended to clarify those items of removal/demolition which are the responsibility of the Contractor.
- C. All equipment and material called for removal shall become the property of the Contractor. If the Owner selects to retain ownership of said items, the Contractor doing the removal shall place the equipment in a location such that it is available for the Owner to pick up and transport in its own vehicles. All equipment and materials that the Owner decides to discard shall be properly disposed of offsite by the Contractor at no cost to the Owner.
- D. The Contractor shall provide all labor, materials, equipment and scheduling necessary in order to demolish/remove those items specified on the Contract Drawings for demolition/removal and shall be responsible for any degree of unforeseen difficulty in the removal of said items.
- E. Every effort has been made to indicate to the Contractor those items to be removed or demolished. All removal and demolition work is included in the lump sum price bid for the respective contract. It is the Contractor's responsibility to visit the site of the construction to ascertain the extent and complexity of the work involved. There will be no additional payment, due to the Contractor's failure to anticipate problems or due to delays caused by the need to coordinate the removal work with the installation of new materials or equipment or the work of other contractors.

1.03 RECORDS OF DEMOLITION WORK

- A. The Contractor shall be responsible for coordinating and recording demolition work.
- B. The Contractor shall record all removal work on a set of design drawings for the existing site.
- C. Immediately following completion of demolition work for each site, the Contractor shall submit a marked-up set of drawings to the Engineer showing all demolition work.

1.04 SUBMITTALS

- A. In compliance with the requirements established with the Contract, the Contractor shall provide the following:

1. Permit for transport and disposal of debris.
2. Demolition procedures and operational sequence for review and acceptance by the Engineer.
3. Signed receipts from disposal sites for hazardous and/or nonhazardous wastes must be delivered to the Owner prior to any payment made to the Contractor for that work.

1.05 ASBESTOS

- A. None

PART 2 - PRODUCTS

Not Applicable.

PART 3 – EXECUTION

3.01 GENERAL

- A. No removal or demolition shall occur without the approval of the Engineer. All demolition/removal shall be coordinated by the Contractor.

3.02 DEMOLITION BY THE CONTRACTOR

- A. The demolition work intended for the Contractor shall include overall coordination of the removal/demolition work and removal and storage of all associated materials.
1. The Electrical Contractor shall visit the site before submitting his bid to familiarize himself with the existing conditions and the extent of the work. No extra compensation will be allowed for work required to be performed or to overcome existing conditions, by failure to visit the site.
 2. The Electrical demolition work shall be performed by the Electrical Contractor in cooperation with the other trades and as scheduled and approved by the Owner's Representative.
 3. The locations of existing equipment to remain including piping, ductwork, conduits, etc., are shown in an approximate way only. The Contractor shall determine the exact location of all existing equipment before commencing work.
 4. Power outages caused by demolition that affect other areas shall be held to a minimum. Shutdowns shall be coordinated with the users and the Owner. Night, weekend and/or Holiday time required to perform electrical demolition work or new electrical work shall be carried as part of the Contract Cost.

END OF SECTION

DIVISION 1
SECTION 01310
SCHEDULE OF WORK

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Contractor, as a minimum, shall fulfill the Contract Schedule specified hereinafter.
- B. Provide all necessary manpower, overtime work, materials and equipment, permits, etc., to complete the contract schedule. The building will be available as listed in Supplementary Conditions, Paragraph I: Working Hours. In general, buildings are available Monday through Friday, 7 a.m. to 3 p.m. Additional hours approved by the City and paid for by the contractor should be agreed to by the City of Newton.
- C. All cutting in occupied areas shall be performed during unoccupied periods.
- D. A legal means of egress shall be maintained during construction at all times.
- E. During fire alarm drills, the Contractor shall immediately clear the area of work and provide complete safe access through the work area. Review this procedure with the Building Department and Fire Department.

1.02 CONTRACT SCHEDULE

- A. Work under this contract shall commence on or about August 6, 2012 with access to the school no later than August 13, 2012.
- B. Work under this contract in the boiler room shall be completed no later than December 28, 2012.
- C. Existing heating systems must be operational by September 15, 2012.
- D. Work under this contract shall be completed by December 28, 2012.

1.03 LIQUIDATED DAMAGES

- A. The work shall be completed on or before said dates. In case the work embraced in this contract shall not have been completed due to the failure of the Contractor to complete the work or any part of the work within the time specified, the Awarding Authority shall recover as liquidated damages \$1,000.00 per day for every day beyond the contract completion dates or completion dates as extended in accordance with Article 8.3 of A201- 1997.
- B. Owner and Contractor recognize that Owner will suffer financial loss if the work is not completed on schedule, thus, such liquidated damages for delay reflect an agreed upon approximation of loss suffered by Owner because of such delay and do not constitute a penalty.

1.04 MILESTONE AND PHASING SCHEDULE

M-1	INITIATE CONTRACT	August 6, 2012
M-2	CONTRACT AWARD	August 6, 2012
M-3	ORDER LONG LEAD EQUIPMENT	August 20, 2012
M-4	ACCESS TO SCHOOL – Pre-Construction (Take measurements)	August 13, 2012
M-5	ACCESS TO SCHOOL - Construction	August 13, 2012
M-11	PROJECT ENTIRE COMPLETION	December 28, 2012

END OF SECTION

SECTION 02050

SELECTIVE DEMOLITION

PART 1 — GENERAL

1.01 GENERAL PROVISIONS

- A. The conditions of the contract and other sections of Division I – General Requirements apply to the work of this section
- B. Examine all drawings and all other sections of the specifications for requirements therein affecting the work of this trade.

1.02 WORK INCLUDED

- A. Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Selective demolition work as indicated on the drawings.
 - 2. Types of Selective Demolition Work include, but is not limited to, the selective removal and subsequent off site disposal of the following:
 - a. Equipment, conduit, walls, etc. within the existing areas indicated as to be removed.
- B. Related work specified elsewhere:
 - 1. Relocation of pipes, conduits, ducts, other mechanical and electrical work are specified by respective trades.
 - 2. Disconnection of existing electrical per 16000, as necessary for demolition as specified by respective trades.

1.03 RELATED SECTIONS

- A. Carefully examine all the contract documents for requirements, which affect the work of this section.
- B. Other work, which directly related to the work of this section, including but not limited to:
 - 1. Section 16000 – Electrical

1.04 SUBMITTALS

- A. Submit schedule of operations for selective demolition work. Include coordination for shut off, capping, and continuation of utility services, together with details for dust and noise control protection.
 - 1. Coordinate with the Owner's continuing occupation of portions of the Building.

1.05 JOB CONDITIONS

- A. The Owner will be continuously occupying areas of the building immediately adjacent to areas of selective demolition. Conduct selective demolition work in manner that will minimize need for disruption of Owner's normal operations. Provide minimum of 72 hours advance notice to Owner of demolition activities which will impact Owner's normal operations.
- B. The Owner assumes no responsibility for actual condition of items or structures to be demolished.
 - 1. Conditions existing at the time of commencement of the contract will be maintained by the Owner insofar as practicable. However, variations within the structure may occur by Owner's removal and salvage operations prior to start of selective demolition work.
- C. Items indicated to be removed but of salvageable value to Contractor may be removed from structure as work progresses. Transport salvaged items from the site as they are removed. The storage or sale of removed items on the site will not be permitted.
- D. Provide temporary barricades and other forms of protection to protect Owner's personnel and general public from injury due to selective demolition work.
 - 1. Provide protective measures to provide free and safe passage of Owner's personnel and general public to and from occupied portions of the facility.
 - 2. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structure of element to be demolished, and adjacent facilities or work to remain.
 - 3. Protect from damages existing finish work that is to remain in place which will become exposed during demolition operations.
 - 4. Protect floors with coverings.
 - 5. Remove protection at completion of work.
- E. Promptly repair damages caused to adjacent facilities by demolition work at no additional cost to the Owner.
- F. Conduct selective demolition operations and debris removal in a manner to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
 - 1. Do not close, block or otherwise obstruct streets, walks or other occupied or used facilities without written permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- G. Use of explosives will not be permitted or required.

- H. Maintain existing utilities, keep in service, and protect against damage during demolition operations.
 - 1. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to governing authorities.
- I. Comply with governing regulations pertaining to environmental protection.
 - 1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

PART 2 — PRODUCTS

Not Used

PART 3 — EXECUTION

3.01 INSPECTION

Prior to commencement of selective demolition work, inspect areas in which work will be performed. Photograph existing structure surfaces, equipment or surrounding properties which could be misconstrued as being damaged from selective demolition work. File with Owner's Representative prior to starting work.

3.02 PREPARATION

- A. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement or collapse of structures to be demolished and adjacent facilities to remain.
 - 1. Cease operations and notify the Owner's Representative immediately if safety of structure appears to be endangered. Take precautions to support structure until determination is made for continuing operations.
- B. Cover and protect furniture, equipment and fixtures from soiling or damage when demolition work is performed in rooms or areas from which such items have not been removed.
- C. Erect and maintain dust proof partitions and closures to prevent spread of dust or fumes to occupied portions of the building.
- D. Locate, identify, stub off and disconnect utility services that are not indicated to remain.
 - 1. Provide bypass connections as necessary to maintain continuity of service to occupied areas of the facility. Provide minimum of 48 hours advance notice to Owner if shut down of service is necessary during changeover.

3.03 SELECTIVE DEMOLITION

- A. Perform selective demolition work in a systematic manner. Use such methods to complete work indicated on Plans in accordance with demolition schedule and governing regulations.
 - 1. Demolish concrete and masonry in sections small enough to preclude any damage to adjacent areas that are to remain intact. Cut concrete and masonry at junctures using power driven masonry saw or hand tools; do not use power driven impact tools.
 - 2. Promptly remove all debris.
 - 3. Provide services for effective air and water pollution controls as may be required by local authorities having jurisdiction.
- B. If unanticipated mechanical, electrical or structural elements which conflict with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit a written report with accurate details to the Owner's Representative. Pending receipt of directive from the Owner's Representative, rearrange selective demolition schedule as necessary to continue overall job progress without delay.
- C. The existing facility will continue to operate during all phases of the demolition work and the subsequent construction. No interruption of the heating and domestic hot water systems will be permitted without prior approval of the Owner.
- D. Submit proposed methods and sequence of operations for the selective demolition work to the Owner's Representative for review prior to the start of the work.
- E. Perform all demolition while ensuring minimum interference with adjacent occupied areas.
- F. Where sections of a system (conduit, etc.) are to be removed and the system serves other areas of the building that are outside the scope of the work:
 - 1. Coordinate the temporary shut down of the system with the Owner's representative.
 - 2. Install supports in the remaining active sections of conduit required by the removal of nearby supports associated with the demolition.
- G. Provide temporary shoring or bracing during the demolition work to prevent movement, settlement, or collapse of the system or adjacent systems due to the work.
- H. Promptly repair any damage caused to adjacent facilities or areas that are to remain at no additional cost to the Owner.
- I. Equipment
 - 1. Coordinate with the Electrical Subcontractor to provide electrical disconnection prior to equipment removal.
 - 2. Remove equipment by unfastening at the supports or attachments. Then remove the attachments from the building, leaving no component of the original installation.
 - 3. Certain equipment may be required to be cut into sections and removed in pieces.

- J. Exercise care with equipment that is to be turned over to the Owner. Examine the equipment before removal in the presence of the Owner's representative to determine its condition. Make a record of any marks, etc. by a photograph or videotape acknowledged by the Owner's representative.
- K. Equipment to be turned over to the Owner: deliver to a location designated by the Owner, and obtain acknowledgment of receipt in good condition.
- L. All equipment, etc., not turned over to the Owner shall become the property of the Contractor, and shall be removed from the site.
- M. If water is used during saw cutting it shall be contained and not allowed to run into the existing floor drains. Care shall be taken that water does not damage any existing areas, utilities, and or electrical lines.
- N. All cut masonry and concrete surfaces shall be smooth. Do not leave any jagged edges of concrete or reinforced steel. If overcutting occurs, the Contractor shall submit a repair procedure for approval and shall execute the same at no cost to the Owner.

3.04 DISPOSAL OF DEMOLISHED MATERIALS

Remove debris, rubbish and other materials resulting from demolition operations from building site. Transport and legally dispose of materials off site.

- A. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling and protection against exposure or environmental pollution.

3.05 CLEANUP AND REPAIR

- A. Upon completion of demolition work, remove tools, equipment and demolished materials from site. Remove protection and leave interior areas broom clean.
- B. Repair demolition performed in excess of that required. Return structures and surfaces to remain to condition existing prior to commencement of selective demolition work. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.

END OF SECTION

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SECTION 16000

ELECTRICAL

PART 1 - GENERAL

1.00 GENERAL PROVISIONS

- A. The GENERAL REQUIREMENTS, DIVISION 1, and BIDDING AND CONTRACT REQUIREMENTS, DIVISION 0, are hereby made a part of this Specification Section.
- B. Examine all Drawings and all Sections of the Specifications and requirements and provisions affecting the work of this Section.

1.01 SCOPE OF WORK

- A. This project includes Electrical improvements at the five (5) Newton schools and Gath Pool including but not limited to:
 - 1. New generators (sized to maintain heating only) and life safety emergency battery units, combination emergency and exit signs, and exit signs at Burr and Bigelow Schools.
 - 2. Upgrade/replace existing panelboards and disconnects at Countryside, Franklin and Spaulding Schools.
 - 3. Upgrade/replace existing electrical service and switchgear at Gath Pool.
 - 4. Upgrade/replace existing panelboards and disconnects at Gath Pool.
- B. The work under this Section shall include the furnishing of all materials, labor, equipment and supplies and the performance of all operations to provide complete working systems, in general, to include the following items:
 - 1. Identification
 - 2. Raceways and Conduit
 - 3. Wire and Cable (600V)
 - 4. Wiring Devices and Plates
 - 5. Outlet Boxes
 - 6. Junction Boxes, Pull Boxes and Wireways
 - 7. Safety Disconnect Switches
 - 8. Panelboards and panelboard interior and cover retro fits.
 - 9. Fuses
 - 10. Battery Powered Emergency Lighting System
 - 11. Motor Starters
 - 12. Standby Generator
 - 13. Automatic Transfer Switch

14. Testing
 15. Operating and maintenance instructions and manuals
 16. Coordination drawings
 17. Shop drawings
 18. Record (as-built) drawings
- C. Work of this Section is generally shown on the Electrical Drawings.

1.02 RELATED WORK

- A. Principal classes of Work related to the Work of this Section are listed in the Specification Table of Contents, and are specified to be performed under the indicated Sections of the Specifications. Refer to the indicated Sections for description of the extent and nature of the indicated Work, and for coordination with related trades. This listing may not include all related Work items. It is the responsibility of the Contractor to coordinate and schedule the Work of this Section with that of all other trades.
- B. The following work is not included in this section and will be provided under other sections:
1. Telephone system, wire, cable, equipment and instruments.
 2. Automatic Temperature Control and Direct Digital Communication wiring except as noted on Drawings.

1.03 PRODUCTS FURNISHED, BUT NOT INSTALLED UNDER THIS SECTION

- A. Furnish the following items for installation under other sections and provide wiring and connections as required:
1. Emergency generator exhaust silencers and flexible connection(s) for installation under Section 15500.
 2. Electric solenoid valve on generator fuel line for installation under *Section 15500 OR * Section 15400.

1.04 DEFINITIONS

- A. As used in this Section, the following items are understood to have the following meaning:
1. **“Contractor or Subcontractor”**, unless otherwise qualified, shall mean the installer of the work specified under this Section.
 2. **“Furnish”** shall mean purchase and deliver to the project site, complete with every necessary appurtenance.
 3. **“Install”** shall mean unload at the delivery point at the site and perform all work necessary to establish secure mounting and proper operation at the proper location in the project.
 4. **“Provide”** shall mean "Furnish" and "Install".
 5. **“Work”** shall mean all labor, materials, equipment, apparatus, controls, accessories and all other items required for a proper and complete installation.

6. **“Concealed”** shall mean hidden from sight in chases, furred-in spaces, shafts, hung ceilings, embedded in construction or in a crawl space. Areas to be concealed as part of tenant alterations to the building shall also be considered in this definition.
7. **“Exposed”** shall mean not installed underground or concealed as defined above.
8. **“Furnished by Others”** shall mean materials or equipment purchased under other sections of the general contract and installed by this section of the specifications by this trade Contractor .
9. **“Owners Representative”** shall be the party responsible to make decisions regarding all contractual obligations in reference to the Scope of Work for the Owner.
10. **“Date of Substantial Completion”** shall indicate the date where the work has been formally accepted as evidenced by completed final punch list or where the work has reached the stage that the Owner obtains beneficial use and commences utilization of the installed systems for business or occupancy purposes. The GENERAL REQUIREMENTS, DIVISION 1, shall supersede this definition where specifically defined.

1.05 CODES, REFERENCES AND PERMITS

- A. Materials, installation of systems and equipment provided under this section shall be done in strict accordance with the Department of Public Safety, Department of Environmental Protection, State Building Code and any other Codes and Regulations having jurisdiction including but not limited to:
 1. All Applicable NFPA Standards
 2. National Electrical Code (NEC).
 3. Occupational Safety and Health Administration (OSHA)
 4. State and Local Building Codes
 5. Underwriters' Laboratories, Inc (UL)
- B. Unless otherwise specified or indicated, materials, workmanship and equipment performance shall conform with the latest governing edition of the following standards, codes, specifications, requirements, and regulations, except when more rigid requirements are specified or are required by applicable codes but not limited to:
 1. American National Standards Institute (ANSI)
 2. American Society of Mechanical Engineers (ASME).
 3. American Society of Testing and Materials (ASTM)
 4. Institute of Electrical and Electronics Engineers (IEEE)
 5. Insulated Cable Engineers Association (ICEA)
 6. National Electrical Contractors Association (NECA)
 7. National Electric Manufacturers Association (NEMA)
 8. Thermal Insulation Manufacturers Association (TIMA)

- C. Codes, laws and standards provide a basis for the minimum installation criteria acceptable. The drawings and specifications illustrate the scope required for this project, which may exceed minimum codes, laws and standards.
- D. Give all notices, file all plans, obtain all permits and licenses, and obtain all necessary approvals from authorities having jurisdiction. Deliver all certificates of inspection to the authorities having jurisdiction. No work shall be covered before examination and approval by the Owner's Representative, inspectors, and authorities having jurisdiction. Replace imperfect or condemned work to conform to requirements, satisfactory to Owner's Representative, and without extra cost to the Owner. If work is covered before inspection and approval, this Contractor shall pay costs of uncovering and reinstalling the covering, whether it meets contract requirements or not.

1.06 GENERAL REQUIREMENTS

- A. Nameplates
 - 1. Each major component of equipment shall have the manufacturer's name, address, type or style, model or serial number, and catalog number on a plate secured to the equipment.
- B. Equipment Guards
 - 1. Belts, pulleys, chains, gears, couplings, projecting setscrews, keys, and other rotating parts so located that any person may come in close proximity thereto shall be completely enclosed or guarded. High-temperature equipment and piping so located as to endanger personnel or create a fire hazard shall be guarded or covered with insulation of type specified for service.

1.07 MATERIAL AND EQUIPMENT STANDARDS

- A. Where equipment or materials are specified with the name of a manufacturer, such specification shall be deemed to be used for the purpose of establishing a standard for that particular item. No equipment or material shall be used unless previously approved by the Owner's Representative.
- B. Substitutions may be offered for review provided the material, equipment or process offered for consideration is equal in every respect to that indicated or specified. The request for each substitution must be accompanied by complete specifications together with drawings or samples to properly appraise the materials, equipment or process. The Contractor shall highlight and list all applicable specification requirements which the substituted material deviates from.
- C. If a substitution of materials or equipment in whole or in part is made, this Contractor shall bear the cost of any changes necessitated by any other trade as a result of said substitution.
- D. All materials, equipment and accessories provided under this section shall be new and unused products of recognized manufacturers as approved.

1.08 SUBMITTALS

- A. Conform to the requirements of Division 1, General Conditions, for schedule and form of all submittals unless specifically noted otherwise in this section. Coordinate this submittal with submittals for all other finishes. Shop drawings and design layouts shall be prepared by licensed installing Contractor s and shall note the name(s), license number(s) and license expiration date(s) of the Contractor (s) installing electrical systems.
- B. Definitions:

1. Shop Drawings are information prepared by the Contractor to illustrate portions of the work in more detail than indicated in the Contract Documents.
2. Acceptable Manufacturers: The mechanical design for each product is based on the single manufacturer listed in the schedule or shown on the drawings. In Part 2 of the specifications, certain Alternate Manufacturers are listed as being acceptable. In addition, the MATERIAL AND EQUIPMENT STANDARDS paragraph potentially allows for substitutions as being acceptable. These are acceptable only if, as a minimum, they:
 - a. Meet all performance criteria listed in the schedules and outlined in the specifications. For example, to be acceptable, an emergency generator must deliver equal kW / kVA at equal or greater efficiency using equal or less fuel as the emergency generator listed in the schedules.
 - b. Fit within the available space it was designed for, including space for maintenance and component removal, with no modification to either the space or the product. Clearances to walls, ceilings, and other equipment will be at least equal to those shown on the design drawings. The fact that a manufacturer's name appears as acceptable shall not be taken to mean the Engineer has determined that the manufacturer's products will fit within the available space – this determination is solely the responsibility of the Contractor .
 - c. For rooftop mounted equipment and equipment mounted in areas where structural matters are a concern, the products must have a weight no greater than the product listed in the schedules or specifications.
 - d. Products must adhere to all architectural considerations including, but not limited to; being of the same color as the product scheduled or specified, fitting within the architectural enclosures and details, and for lighting – being the same size and of the same physical appearance as scheduled or specified products.

C. Submittal Procedures, Format and Requirements

1. Review submittal packages for compliance with Contract Documents and then submit to Owner's Representative for review. Submit enough sets of shop drawings such that, after review, two sets will be kept by the reviewer, with only the remaining sets returned with reviewer's marks and comments.
2. Each Shop Drawing shall indicate in title block, and each Product Data package shall indicate on cover sheet, the following information:
 - a. Title
 - b. Equipment number
 - c. Name and location of project
 - d. Names of Owner, Engineer and Seller
 - e. Names of manufacturers, suppliers, vendors, etc.
 - f. Date of submittal
 - g. Whether original submittal or resubmitted
3. Shop Drawings showing manufacturer's product data shall contain detailed dimensional drawings (minimum 1/4" – 1' scale) including plans and sections (where physical clearance could be an issue). Provide larger scale details as necessary.

4. Submit accurate and complete description of materials of construction, manufacturer's published performance characteristics, sizes, weights, capacity ratings (performance data, alone, is not acceptable), electrical requirements, starting characteristics, wiring diagrams, and acoustical performance for complete assemblies. Drawings shall clearly indicate location (terminal block or wire number), voltage and function for all field terminations, and other information necessary to demonstrate compliance with all requirements of Contract Documents.
 5. Provide Shop Drawings showing details of piping connections to all equipment. If connection details are not submitted and connections are found to be installed incorrectly, this Contractor shall reinstall them within the original contract price.
 6. Provide complete data for all auxiliary services and utilities required by submitted equipment. This shall include fuel, cooling and exhaust requirements and points of connections.
 7. Provide a complete description of all controls and instrumentation required including electrical power connection drawing for all components and interconnection wiring to starters, detailed information on starters, control diagrams, termination diagrams, and all control interfaces with a central control system.
 8. Provide installation and erection information including; lifting requirements, and any special rigging or installation requirements for all equipment.
 9. The Owner's Representative shall approve all materials before commitment for materials is made.
- D. Product Data: Submit complete manufacturer's product description and technical information including:
1. Identification
 2. Raceways and Conduit
 3. Wire and Cable (600V)
 4. Wiring Devices and Plates
 5. Outlet Boxes
 6. Junction Boxes, Pull Boxes and Wireways
 7. Safety Disconnect Switches
 8. Panelboards and retrofit components
 9. Motor Starters
 10. Variable Frequency Drives and associated Utility Rebate Forms
 11. Standby Generator
 12. Automatic Transfer Switch(es)
 13. Battery Powered Emergency Lighting System
 14. Fire Seal and Fireproof Sealant
- E. Submit shop drawings and product data grouped to include complete submittals of related systems, products and accessories in a single submittal.

1. Access panel shop drawings shall be submitted to the Construction Supervisor for approval.
2. Do not submit multiple product information in a single bound manual.
3. Three-ring binders shall not be accepted.

F. Deviations:

1. Concerning deviations other than substitutions, proposed deviations from Contract Documents shall be requested individually in writing whether deviations result from field conditions, standard shop practice, or other cause. Submit letter with transmittal of Shop Drawings which flags the deviation to the attention of the Owner's Representative.
2. Without letters flagging the deviation to the Owner's Representative, it is possible that the Engineer may not notice such deviation or may not realize its ramifications. Therefore, if such letters are not submitted to the Owner's Representative, the Seller shall hold the Engineers, his consultants and the Owner harmless for any and all adverse consequences resulting from the deviations being implemented. This shall apply regardless of whether the Engineer has reviewed or approved shop drawings containing the deviation, and will be strictly enforced.
3. Approval of proposed deviations, if any, will be made at discretion of Engineer.

G. Schedule: Incorporate shop drawing review period into construction schedule so that Work is not delayed. This Contractor shall assume full responsibility for delays caused by not incorporating the following shop drawing review time requirements into his project schedule. Allow at least 10 working days, exclusive of transmittal time, for review each time shop drawing is submitted or resubmitted with the exception that 20 working days, exclusive of transmittal time are required for the following:

1. Emergency generator paralleling switchgear.
2. Coordination drawings.
3. If more than five shop drawings of a single trade are received in one calendar week.

H. Responsibility

1. Intent of Submittal review is to check for capacity, rating, and certain construction features. The Contractor shall ensure that work meets requirements of Contract Documents regarding information that pertains to fabrication processes or means, methods, techniques, sequences and procedures of construction; and for coordination of work of this and other Sections. Work shall comply with approved submittals to extent that they agree with Contract Documents. Submittal review shall not diminish responsibility under this Contract for dimensional coordination, quantities, installation, wiring, supports and access for service, nor the shop drawing errors or deviations from requirements of Contract Documents. The Engineer's noting of some errors while overlooking others will not excuse the Contractor from proceeding in error. Contract Documents requirements are not limited, waived nor superseded in any way by review.
2. Inform Contractor, manufacturers, suppliers, etc. of scope and limited nature of review process and enforce compliance with contract documents.

I. In the event that the Contractor fails to provide Shop Drawings for any of the products specified herein:

1. The Contractor shall furnish and install all materials and equipment herein specified in complete accordance with these Specifications.
 2. If the Contractor furnishes and installs material and/or equipment that is not in complete accordance with these Specifications, he shall be responsible for the removal of this material and/or equipment. He shall also be responsible for the replacement of this material and/or equipment with material and/or equipment that is in complete accordance with these Specifications, at the direction of the Owner's Representative.
 3. Removal and replacement of materials and/or equipment that is not in complete compliance with these Specifications shall be done at no extra cost to the Owner.
 4. Removal and replacement of materials and/or equipment that is not in complete compliance with these Specifications shall not be allowed as a basis for a claim of delay of completion of the Work.
- J. Mark dimensions and values in units to match those specified.
- K. Submit Material Safety Data Sheets (MSD) on each applicable product with submittal.

1.09 OPERATION AND MAINTENANCE DATA

- A. Commence preparation of the Operating and Maintenance (O&M) manuals immediately upon receipt of "Approved" or "Approved as Noted" shop drawings and submit each section within one month. The final submission shall be no later than two months prior to the projected date of Substantial Completion of the Project.
- B. Submit O&M table of contents in the submittal phase. O&M manuals shall be built as submittals are accepted and shall include the individual equipment manufacturer's data retrieval sheet, as per Attachment A in Part IV for input into the Owner's Maintenance Management System. Form shall be provided and completed electronically.
- C. Each O&M document shall include the manufacturer's web address for equipment specific O&M information for Internet access by the Owner.
- D. The manual shall consist of three (3) sets of manuals and include three (3) sets of CDs, which shall contain the scanned content of the entire manual. The manual shall highlight the actual equipment used and not be a master catalog of all similar products of the manufacturer. The manual shall be submitted for review prior to creation of the CDs.
- E. The Manual shall contain the following:
 1. Operations Manual
 - a. Systems description including all relevant information needed for day-to-day operations and management including start-up and shut-down instructions.
 - b. Wiring diagrams, schematics, logic diagrams and sequence of operations that accurately depict the controls system.
 - c. Depiction of each interface screen where programmable logic and visual displays are provided. Descriptors shall be provided to define displayed data, alarms, etc.
 - d. A single sheet (for ease of removal) of all access codes and passwords necessary to access all levels of control and programming.
 - e. Trouble shooting guide defining common alarms/problems with possible cause and effect.

2. Maintenance Manual

- a. Define all maintenance activities required to ensure system operation within manufacturers specified parameters. Provide table of all required activities plotted vs. interval with adequate fill-in-space for “activity completion date” and “comments”. Where multiple instrument readings are required, provide data sheet formatted to accommodate activity.
- b. Define recommended spare parts inventory with part numbers and source defined for ordering by the Owner. Identify lead time on all parts, source location and cost.
- c. Provide copy of all warranty information with associated date of substantial completion (commencement of warranty) and end date of coverage. Define all components/subsystems specifically included and excluded.
- d. Provide all information as listed on the Facility Support Services data sheet as per Attachment A in Part IV for input into the Owner’s Maintenance Management System. Form shall be provided and completed electronically.

F. Provide O&M manuals for each of the following:

1. Fire Alarm System
2. Motor Starters
3. Variable Frequency Drives
4. Emergency Lighting System
5. Standby Generator
6. Automatic Transfer Switches

1.10 RECORD DRAWINGS

- A. Refer to DIVISION 1, General Conditions, for record drawings and procedures to be provided under this section, unless specifically noted otherwise in this section.
- B. Record Drawings (red-line drawings) will be updated by this Contractor daily for review with the monthly requisition. The record drawing shall be an accurate depiction of the systems as completed, including dimensions (vertical/horizontal) of concealed components off fixed building elements.
- C. The Electrical Foreman shall maintain complete and separate set of prints of Contract Drawings at job site at all times and shall record work completed and all changes from original Contract Drawings clearly and accurately including work installed as a modification or addition to the original design.
- D. At completion of work the Electrical Contractor shall prepare a complete set of record drawings on AutoCAD showing all systems as actually installed. The Architectural background AutoCAD files will be made available for the Contractor’s copying, at his expense, to serve as backgrounds for the drawings. The Electrical Contractor shall transfer changes from field drawings onto AutoCAD drawings and submit copy of files and three sets of prints to Owner’s Representative for comments as to compliance with this section. CADD layering as established by the A&E design team shall be maintained with any and all changes done by the Contractor.

- E. The Architect and Engineer are not granting to the Contractor any ownership or property interest in the CADD Drawings by the delivery of the CADD Disks to the Contractor. The Contractor's rights to use the CADD disks and the CADD Drawings are limited to use for the sole purpose of assisting in the Contractor's performance of its contractual obligations under its contract with respect to the Project. The Architect and Engineer are granting no further rights. Any reuse or other use by the Contractor will be at the Contractor's sole risk and without liability to the Architect and Engineer. The Contractor hereby waives and releases any losses, claims, damages, liabilities of any nature whatsoever, and costs (including attorney fees) arising out of, resulting from, or otherwise related to the use of the CADD Disks and CADD Drawings by the Contractor. The Contractor, to the maximum extent permitted by law, hereby agrees to indemnify, defend and hold the Architect and Engineer harmless from all losses, claims, damages, liabilities, and costs (including attorney fees) arising out of, resulting from, or otherwise related to the use of the CADD Disks and CADD Drawings by the Contractor.
- F. Record Drawings, shall show "as-built" condition of details, sections, riser diagrams, control changes and corrections to schedules. Schedules shall show actual manufacturer and model numbers of final equipment installation.
- G. The Electrical Contractor shall submit the record set for approval by the engineer a minimum of four weeks prior to seeking the permanent certificate of occupancy.

1.11 WARRANTIES

- A. Submit manufacturer's standard replacement warranties for material and equipment furnished under this Section. Such warranties shall be in addition to and not in lieu of all liabilities which the manufacturer and the Electrical Contractor may have by law or by provisions of the Contract Documents.
- B. All materials, equipment and work furnished under this Section shall be guaranteed against all defects in materials and workmanship for a minimum period of one-year (1) commencing with the Date of Substantial Completion. Where individual equipment sections specify longer warranties, provide the longer warranty. Any failure due to defective material, equipment or workmanship which may develop, shall be corrected at no expense to the Owner including all damage to areas, materials and other systems resulting from such failures.
- C. Guarantee that all elements of each system meet the specified performance requirements as set forth herein or as indicated on the Drawings.
- D. Upon receipt of notice from the Owner of the failure of any part of the systems during the warranty period, the affected parts shall be replaced. Any equipment requiring excessive service shall be considered defective and shall be replaced.

1.12 COORDINATION

- A. Refer to Division 1, General Conditions, for coordination requirements applicable to this section, unless specifically noted otherwise in this section.
- B. Materials and apparatus shall be installed as fast as conditions of the building will permit and must be installed promptly when and as required.
- C. Confer with all other trades relative to location of all apparatus and equipment to be installed and select locations so as not to conflict with work of other Sections. Any conflicts shall be referred immediately to the Owner's Representative for decision to prevent delay in installation of work. All work and materials placed in violation of this clause shall be readjusted to the Owner's Representative's satisfaction at no expense to the Owner.

- D. Where work of this section will be installed in close proximity to work of other sections or where there is evidence that the work of this section may interfere with work of other sections, assist in working out space conditions to make satisfactory adjustment. Prepare and submit for approval 3/8" scale or larger working drawings and sections, clearly showing how the work is to be installed in relation to the work of other sections. If the work of this section is installed before coordinating with other trades or so as to cause interference with work of other trades, make changes necessary to protect conditions without extra charge.
- E. Keep fully informed as to the shape, size and position of all openings required for all apparatus, conduit, cable, sleeves, etc., and give information in advance to allow construction of required openings. Furnish all sleeves, pockets, supports and incidentals, and coordinate with the General Contractor for the proper setting of same.
- F. All distribution systems which require pitch or slope such as condensate drains and water piping shall have the right of way over those which do not. Confer with other trades as to the location of pipes, ducts, lights and apparatus and install work to avoid interferences.
- G. Make reasonable modifications in the work as required by structural interferences, or by interference with work of other trades, or for proper execution of the work without extra charge.

1.13 COORDINATION DRAWINGS

- A. Provide a set of Electrical coordination drawings for use in verifying required code clearances of all electrical equipment and for use in coordinating installation of equipment with other trades. Where practical, the CADD layering as established by the A&E team for the construction documents, shall be utilized in the preparation of all coordination drawings. Where CADD layering deviates from the A&E team's layering convention, submit the proposed layering system for approval. The CADD layering used shall provide, as a minimum, the flexibility of illustrating trade specific items similar to the established A&E team layering standard.
- B. The intent of the coordination drawings is to identify and resolve installation conflicts prior to fabrication and installation of any MEP trade.
- C. The HVAC Contractor's floor plans shall be the basis for floor plan coordination. The Electrical Contractor's reflected ceiling plans shall be the basis for reflected ceiling plan coordination. All other trades shall provide the HVAC / Electrical Contractors with their Drawings / Layers for incorporation into one set of coordinated multi-trade drawings.
- D. The CADD Drawings prepared by the Architect and Engineer contain representations of certain elements of the Project, and are not necessarily complete, nor are the CADD Drawings comparable or identical to final construction drawings. The Architect and Engineer make no representations or warranties with respect to the accuracy or completeness of the CADD Drawings. The Architect and Engineer do not recommend that the Contractor use the CADD Drawings in connection with the preparation of shop drawings. Should the Contractor choose to do so, however, the Contractor shall carefully review and compare the CADD Drawings with the corresponding final construction drawings to verify their accuracy and identify all discrepancies, differences, and inconsistencies in design, locations, dimensions, scope, and all other respects between the CADD Drawings and the corresponding final construction drawings. The Contractor, shall base the preparation and submission of shop drawings, and in general, shall base the performance of all its obligations with respect to the Project upon the information contained in the final construction drawings and not the CADD drawings. Nothing shall be construed as to relieve the Contractor of any of its obligations (such as, by way of illustration, the obligation to make field measurements or to coordinate drawings) under its contract with respect to the Project.
- E. Electrical Coordination Drawings shall be prepared as outlined below.

1. Prepare Electrical Coordination Drawings showing all Electrical work to be installed as part of Section 16000. The Coordination Drawings shall be created using AutoCAD and shall have a scale of 1/4" or 3/8".
2. The Electrical Coordination Drawings shall show distribution equipment (switchboards, panelboards, transformers, motor control centers, etc), feeders, light fixtures, cable tray and conduit racks. Drawings shall include dimensions and elevation tags for all equipment, devices and material.
3. After incorporating all trades, resolve any areas of conflicts between trades under the direction of the General Contractor / Construction Manager and submit fully coordinated drawings to the Owner's Representative.
4. Do not install any of this work prior to the preparation and Engineer's review of the final Coordination Drawings. If Electrical work proceeds prior to the final Coordination Drawings, any change to the Electrical work to correct the interferences and conflicts which result will be made by this Contractor at no additional cost to the Owner.
5. Coordination Drawings are for this Contractor's and Owner's Representative's use during construction and shall not be construed as replacing any shop, "as-built", or Record Drawings required elsewhere in these Contract Documents.
6. Owner's Representative's review of Coordination Drawings shall not relieve this Contractor from his overall responsibility for coordination of all work performed pursuant to the Contract or from any other requirements of the Contract.

1.14 INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

- A. It is the intention of the Specifications and Drawings to call for complete, finished work, tested and ready for continuous operation. Any apparatus, appliance, material or work not shown on the Drawings, but mentioned in the Specifications or vice-versa, or any incidental accessories necessary to make the work complete in all respects and ready for operation, even if not particularly specified, shall be provided by this Contractor without additional expense to the Owner.
- B. The Drawings are generally diagrammatic. The locations of all items that are not definitely fixed by dimensions are approximate only. The exact locations must be determined at the project and shall have the approval of the Owner's Representative before being installed. This Contractor shall follow Drawings, including his shop drawings, in laying out work and shall check the Drawings of other trades to verify spaces in which work will be installed. Maintain maximum headroom and space conditions. Where space conditions appear inadequate, notify the Owner's Representative before proceeding with the installation. This Contractor shall, without extra charge, make reasonable modifications in the layout as needed to prevent conflict with work of other trades or for proper execution of the work.
- C. Any requests for information (RFI) for resolving an apparent conflict or unclarity, or a request for additional detail, shall include a sketch or equivalent description of Contractor's proposed solution.
- D. Size of conduits, cable trays, raceways and methods of running them are shown, but it is not intended to show every offset and fitting, nor every structural difficulty that may be encountered. To carry out the true intent and purpose of the Drawings, all necessary parts to make complete approved working systems ready for use, shall be furnished without extra charge. All work shall be installed in an approved workmanlike manner.

1.15 INSPECTION OF SITE CONDITIONS

- A. Prior to submission of bid, visit the site and review the related construction documents to determine the conditions under which the Work has to be performed and send a report, in writing, to the Owner's Representative, noting any conditions which might adversely affect the Work of this Section of the Specifications.

1.16 SURVEY AND MEASUREMENTS

- A. Base all required measurements, horizontal and vertical, from referenced points established WITH the Owner's Representative. The Electrical Contractor shall be responsible for correctly laying out the Work required under this Section of the Specifications.
- B. In the event of discrepancy between actual measurements and those indicated, notify the Owner's Representative in writing and do not proceed with the related work until instructions have been issued.

1.17 DELIVERY, STORAGE AND HANDLING

- A. No materials shall be delivered or stored on site until corresponding Shop Drawings have been approved.
- B. All manufactured materials shall be delivered to the site in original packages or containers bearing the manufacturer's labels and product identification.
- C. Protect materials against dampness. Store off floors, under cover and adequately protected from damage.
- D. Inspect all equipment and materials, upon receipt at the job site, for damage and conformance to approved shop drawings.

1.18 PROTECTION OF WORK AND PROPERTY

- A. This Contractor shall be responsible for the care and protection of all work included under this Section until the completion and final acceptance of this Contract.
- B. Protect all equipment and materials from damage from all causes including, but not limited to, fire, vandalism and theft. All materials and equipment damaged or stolen shall be repaired or replaced with equal material or equipment at no additional cost to the Owner.
- C. Protect all equipment, outlets and openings with temporary plugs, caps and covers. Protect work and materials of other trades from damage that might be caused by work or workmen under this Section and make good damage thus caused.
- D. Damaged materials are to be removed from the site; no site storage of damaged materials will be allowed.

1.19 SUPERVISION

- A. Supply the service of a competent Supervisor with a minimum of 5 years experience in Electrical construction supervision who shall be in charge of the Electrical work at the site.

1.20 SAFETY PRECAUTIONS

- A. Life safety and accident prevention shall be a primary consideration. Comply with all of the safety requirements of the Owner and OSHA throughout the entire construction period of the project.

- B. Furnish, place and maintain proper guards and any other necessary construction required to secure safety of life and/or property.

1.21 SCHEDULE

- A. Construct work in sequence under provisions of Division 1 and as coordinated with the Owner's Representative.

1.22 HOISTING, SCAFFOLDING AND PLANKING

- A. The work to be done under this Section of the Specifications shall include the furnishing, set-up and maintenance of all derricks, hoisting machinery, cranes, helicopters, scaffolds, staging and planking as required for the work.

1.23 CUTTING AND PATCHING

- A. Provide all cutting and patching necessary for the proper installation of work to be performed under this Section.
- B. All work shall be fully coordinated with all phases of construction, in order to minimize the requirements for cutting and patching.
- C. Form all chases or openings for the installation of the work of this Section of the specifications, or cut the same in existing work and see that all sleeves or forms are in the work and properly set in ample time to prevent delays. Be responsible that all such chases, openings, and sleeves are located accurately and are of the proper size and shape and consult with the Owner's Representative and all other trades concerned in reference to this work. Confine the cutting to the smallest extent possible consistent with the work to be done. In no case shall piers or structural members be cut without the approval of the Owner's Representative.
- D. Fit around, close up, repair, patch, and point around the work specified herein to match the existing adjacent surfaces and to the satisfaction of the Owner's Representative.
- E. Fill and patch all openings or holes left in the existing structures by the removal of existing equipment which is part of this Section of the Specifications.
- F. All of this work shall be carefully done by workmen qualified to do such work and with the proper and smallest tools applicable.
- G. Any cost caused by defective or ill-timed work required by this Section of the specifications shall be borne by this Contractor.
- H. When, in order to accommodate the work required under this Section of the specifications, finished materials of other trades must be cut or fitted, furnish the necessary drawings and information to the trades whose materials must be cut or fitted.

1.24 SLEEVES, INSERTS AND ANCHOR BOLTS

- A. Coordinate with other trades the location of and maintaining in proper positions, sleeves, inserts and anchor bolts to be supplied and/or set in place under this section of the specifications. In the event of incorrectly located preset sleeves, inserts and anchor bolts, etc., all required cutting and patching of finished work shall be done under this section of the specifications.
- B. All pipes passing through floors, walls, ceilings or partitions shall be provided with fire stopping to maintain the fire rating of the structure. All penetrations and associated fire stopping shall be installed in accordance with the fire stopping manufacturer's listed installation details. Provide

sleeves for all penetrations where required by the listed detail, for the penetration of all mechanical room floors and where specifically required on the drawings.

- C. Field drilling (core drilling), when required, shall be performed under this section of the specifications, after receipt of approval by the Owner's Representative.
 - 1. When coring can not be avoided, provide ¼ inch pilot hole prior to coring. When coring through floor or slab, verify location of core on floor below and protect and piping, ductwork, wiring, furniture, personnel, etc., below the location of the core.

1.25 SUPPLEMENTARY STEEL, CHANNELS AND SUPPORTS

- A. Provide all supplementary steel, factory fabricated channels and supports required for the proper installation, mounting and support of all Electrical equipment, piping, etc., required by the Specifications.
- B. Supplementary steel and factory fabricated channels shall be firmly connected to building construction in a manner approved by the Owner's Representative as shown on the drawings or herein specified.
- C. The type and size of the supporting channels and supplementary steel shall be determined by the Contractor and shall be of sufficient strength and size to allow only a minimum deflection in conformance with the manufacturer's requirements for loading.
- D. All supplementary steel and factory fabricated channels shall be installed in a neat and workmanlike manner parallel to the walls, floors and ceiling construction. All turns shall be made with 90 degree and 45 degree fittings, as required to suit the construction and installation conditions.
- E. All supplementary steel including factory fabricated channels, supports and fittings shall be galvanized steel, aluminum or stainless steel where exposed or subject to rust producing atmosphere. Factory fabricated channels shall be manufactured by Unistrut, H-strut, Powerstrut or approved equal.

1.26 HAZARDOUS MATERIALS

- A. Removed batteries shall be recycled by a facility approved by the Owner's Representative. A uniform hazardous waste manifest shall be prepared for all disposals and returned with all applicable signoffs prior to application for final payment.
- B. Removed fluorescent and HID lamps shall be recycled by a facility approved by the Owner's Representative. A uniform hazardous waste manifest shall be prepared for all disposals and returned with all applicable signoffs prior to application for final payment.
- C. All ballasts in lighting fixtures to be disposed shall be verified to be PCB free. All ballasts manufactured prior to 1979 and not labeled as PCB free shall be considered to contain PCB's. Provide written verification to the Owner's Representative that confirms PCB free waste. Where PCB free waste cannot be verified, ballasts shall be recycled by a facility approved by the Owner's Representative, with PCB components eliminated by a high temperature incineration. A uniform hazardous waste manifest shall be prepared for all disposals and returned with all applicable signoffs prior to application for final payment. All handling shall conform to EPA requirements. Provide breakout cost for this scope.
- D. Where it has been identified that asbestos-containing material exists within the scope limits, refer to the Asbestos Abatement specification section for requirements.

1.27 ACCESSIBILITY

- A. All work provided under this Section of the Specification shall be installed so that parts requiring periodic inspection, maintenance and repair are accessible. Work of this trade shall not infringe upon clearances required by equipment of other trades, especially code required clearances to electrical gear. Minor deviations from the drawings may be made to accomplish this, but changes of substantial magnitude shall not be made prior to written approval from the Owner's Representative.

1.28 PROJECT CLOSEOUT

A. Certificates Of Approval

- 1. Upon completion of all work, provide certificates of inspections from the following equipment manufacturers stating that the authorized factory representatives have inspected and tested the operation of their respective equipment and found the equipment to be in satisfactory operating condition and installed per the manufacturers installation instructions and requirements.
 - a. Standby Generator
 - b. Automatic Transfer Switch
 - c. Variable Speed Drive

B. Construction Observations By The Engineer

- 1. The engineer is contracted to make **one** progress site visit during construction, **one** substantial completion (punch list) site visit for determining substantial completion and **one** Final site visit to determine if all work is complete.
- 2. The Trade Contractors and the General Contractor are required to inspect their own work and make any corrections to the work to comply with the specifications and the contract documents. It is not the responsibility of the engineer to develop lists of incomplete work items.
- 3. Progress Site Visits
 - a. The purpose of the progress site visit by the engineer is to observe if the work is proceeding in accordance with the contract documents.
 - b. The engineer will prepare a field report which will note in general the work completed since the last observation visit, work found not to be in accordance with the contract documents and work not corrected since the previous observation visit.

C. Substantial Completion

- 1. When the Contractor considers the Work under this Section is substantially complete, the Contractor shall submit written notice, through the General Contractor, with a detailed list of items remaining to be completed or corrected and a schedule of when each remaining work item will be completed. Should the engineer determine the list of remaining work does not constitute substantial completion the engineer will notify the Architect and/or Owner and he will not make a substantial completion site visit.
- 2. The following items shall be completed prior to the written request for substantial completion site visit:

- a. Certification of successful operation of all systems.
 - b. Training of the Owner's personnel in the operation of the systems.
 - c. Record Drawings in accordance with the contract specifications.
 - d. Operation and Maintenance manuals.
 - e. Testing reports.
 - f. Manufacturer's certificates of approvals.
 - g. Emergency contact list for reporting of malfunctioning equipment during the warrantee period.
 - h. Contractors Project Completion certificate.
- 3. Should the Engineer, during the substantial completion visit, observe that the Work is substantially complete, s/he will provide a written listing of the observed deficiencies referred herein as the Punch List. The Punch List will provide for a place for the Contractor and general Contractor to sign off and date each item individually indicating that the observed deficiency item has been corrected.
 - 4. Should the Engineer, during the substantial completion site visit, observe that the Work is not substantially complete, s/he will provide, a written list of the major deficiencies and a reason for the work not being considered substantially complete.
 - 5. If the work is found not to be substantially complete then the engineer shall be reimbursed for his time to reobserve the work. A reobservation fee shall be charged to the Contractor through the contractual agreement for any further observations by the engineer.
 - 6. The Contractor shall remedy all deficiencies listed in the punch list within the time frame required by the contract.

D. Engineers Construction Completion Certification

- 1. Where required by the applicable code, the Engineers Construction Completion Certification will be issued by RDK Engineers when all life safety and health related issues are complete, all required functional tests are complete and all reports are complete. The following is a minimum listing of the required systems to be tested with reports generated indicating they are complete and ready for use:
 - a. Emergency and Egress Lighting System
 - b. Fire Alarm System
 - c. Emergency and Standby Generator
 - d. Automatic Transfer Switch
- 2. There shall be NO outstanding items identified on the punch list for scope within any of these categories.

E. Final Completion

- 1. The following items shall be submitted prior to the written request for Final completion:
 - a. Revised Substantial Completion items to be resubmitted in accordance with the review process comments.

- b. Warranties commencing the date of Substantial completion
 - c. Individual Signed and dated Punch List acknowledging completion of all punch list items
 - 2. When the Contractor considers all of the punch list work items complete, the Contractor shall submit written notice through the General Contractor that all Punch List items are complete and resolved and the work is ready for final observation site visit. The signature lines for completion of each punch list item shall be signed by the Contractor indicating the work is complete and signed by the General Contractor indicating s/he has inspected the work and found it to be complete. Should the Engineer find the work to be finally complete and all Punch List items are complete the Engineer will make a recommendation to the Architect or Owner. If the Engineer has found the punch list work to be incomplete during final inspection a written listing of the observed deficiencies will be prepared by the Engineer.
 - 3. If the work is not fully complete then the engineer shall be reimbursed for his time to reobserve the work. A reobservation fee shall be charged to the Contractor through the contractual agreement for any reobservations by the engineer.
- F. Re-observation Fees
- 1. The re-observation fee shall be \$1200.00 per visit.
- G. Contractor's Project Completion Certificate
- 1. Upon completion of work and prior to request for Certificate of Occupancy, each Trade Contractor and the General Contractor shall issue a certificate stating that work has been installed generally consistent with construction documents and all applicable codes. RDK Engineers can furnish a blank Contractor's certificate form upon request. The certificate shall certify:
 - a. Execution of all work has been in accordance with the approved construction documents.
 - b. Execution and control of all methods of construction was in a safe and satisfactory manner in accordance with all applicable local, state and federal statutes and regulations.
 - 2. The certificate shall include the following information:
 - a. Project.
 - b. Permit Number.
 - c. Location.
 - d. Construction Documents.
 - e. Date on Plans and Specifications submitted for approval and issuance of the Building Permit.
 - f. Addendum(a) and Revision Dates.
 - 3. The certificate shall be signed by the Contractor and include the following:
 - a. Signature.
 - b. Date.

- c. Company.
- d. License Number.
- e. License Expiration Date.

PART 2 - PRODUCTS

2.00 NOT USED

2.01 IDENTIFICATION

A. Nameplates

1. Nameplates shall be laminated black Bakelite with minimum 1/4" high white recessed letters.
2. Nameplates shall be securely attached to the equipment. Utilize mechanical fasteners such as galvanized steel or brass screws for exterior applications. High strength adhesives or cements may be used for interior applications.
3. Equipment panel and valve bar code labels shall be 4" by 2½" and designed to withstand temperatures of -22°F to +392°F. Labels are designed to be resistant to water, acid/solvent, dirt and oil repellant. Labels shall be high tensile Graphiplast® tearing strength as well as scratch resistant and affixed to equipment by cable ties or adhesive clear pouch. Location of label shall be at unit control panel, next to factory nameplate, lower right-hand corner of panel, and/or tie wrapped to localize disconnect at unit. Installation instructions shall be provided with the labels to assure durability (i.e., clean surface prior to adhering adhesive label, leave cable ties loose on outside of equipment to allow freedom of movement due to the elements, etc.) and with adhesive tags not secured when temperatures are below 45°F ambient temperature.

2.02 RACEWAYS AND CONDUIT

A. Rigid Galvanized Steel (RGS) Conduit

1. RGS shall be zinc-coated steel that conforms to ANSI C80.1, UL Specification No. 6 and Federal Specification WW-C-581e by Allied Tube and Conduit, Republic Steel, Wheatland Tube or approved equal.
2. RGS fittings shall be threaded. Split couplings or non-threaded fittings shall not be used.
3. Nipples and Close Nipples shall be RGS, length as noted or as required to conform to field conditions.

B. Intermediate Metal Conduit (IMC)

1. IMC shall be zinc-coated steel that conforms to ANSI C80.6, UL Standard No. 1242 and Federal Specification WW-C-581e by Allied Tube and Conduit, Wheatland Tube or approved equal.
2. IMC fittings shall be threaded.

C. Electrical Metallic Tubing (EMT)

1. EMT shall be zinc-coated steel that conforms to ANSI C80.3, UL Standard No. 797 and Federal Specification WW-C-563 as by Republic Steel, Allied Tube and Conduit or approved equal.
 2. EMT fittings shall be zinc plated pressed steel set screw type that shall form a positive ground path.
- D. Polyvinyl Chloride (PVC) Non-metallic Conduit
1. PVC conduit and fittings shall be Schedule 40 or Schedule 80, 90°C. UL Listed equal to Carlon Plus 40 or Plus 80. PVC shall meet NEMA Specification TC-2, TC-3 and UL-651.
 2. PVC, fittings and solvent cement shall be by single approved manufacturer.
 3. PVC shall be sunlight resistant and listed for exposed or outdoor usage.
- E. Miscellaneous Conduit Fittings
1. Elbows shall be standard radius unless noted otherwise. Where Large Radius elbows are specified, provide 48" radius unless noted otherwise.
 2. Bushings shall be threaded pressed steel hot dipped galvanized with conduit end stop and integrally molded noncombustible phenolic insulated surface rated for 150°C.
 3. Bonding bushings shall be threaded pressed steel hot dipped galvanized with conduit end stop and integrally molded noncombustible phenolic insulated surface rated for 150°C with a lay-in tin plated copper grounding lug.
 4. Exposed conduit expansion fittings shall be hot-dipped galvanized malleable iron with external bonding jumper equal to O.Z./Gedney Type EX for RGS or Type TX for EMT (4" maximum expansion).
- F. Flexible Metallic Conduit
1. Liquidtight Metal Conduit shall be UL Listed fabricated from a spiral wound strip of heavy gauge, corrosion resistant, hot dipped galvanized steel equal to Electri-flex Company Type LA. The jacket shall be flame retarded, sunlight resistant PVC extruded over the spiral wrap. Sizes through 1 1/4" shall have an integral copper bonding strip.
 2. Liquidtight fittings shall be UL listed zinc plated insulated throat.
 3. Flexible metal conduit shall be UL Listed non-jacketed steel fabricated from a spiral wound strip of heavy gauge, corrosion resistant, hot dipped galvanized steel equal to Electri-flex Company Type BR.
- G. Wireways shall be minimum 16-gauge steel with all straight runs having hinged spring-latched covers. Finish shall be painted over a corrosion resistant phosphate pretreatment to protect against corrosion. Interior parts shall be smooth and free of sharp edges and burrs. Provide wireway as identified on the drawings for NEMA 1, 3R or 12 service. Wireways shall be equal to Square D and UL Listed.

2.03 WIRE AND CABLE (600V)

- A. Provide single-conductor, annealed copper wire and cable with insulation rated for 600 V, of sizes specified and scheduled on Drawings, by General Electric, Southwire, Okonite or approved equal, for secondary service, feeders, branch and system wiring. Wire sizes shown and specified are American Wire Gauge for copper conductors.

- B. The use of aluminum conductors is not allowed.
- C. Wire #10 and larger shall be stranded; #12 and smaller shall be solid. Wire and cable shall have THWN-THHN or XHHW insulation for branch circuit and feeder conductors.
- D. Conductor Color-coding
 - 1. Service entrance, branch circuit and feeder conductors shall be color-coded. Conductors #12 and #10 shall be colored with a factory applied solid or striped compound coating (black, red, blue, brown, orange or yellow). Neutrals and equipment grounds shall have solid compound or solid color coating (white, gray and green), except that neutrals with colored stripe shall be used where required by code. Phase conductors #8 and larger with stripes, bands or hash marks shall have background color other than white, green and gray.
 - 2. Alternative field-applied color coding methods may be used for wire #8 or larger, with color code as specified in other sections of this specification. Coloring shall be applied by the use of flame-retardant vinyl tape, equal to 3M Scotch 35.
- E. Cable
 - 1. Flexible Metal Clad (MC) cable shall be UL Listed with THHN insulated conductors with an insulated grounding conductor within galvanized steel or aluminum interlocked armor. Connectors shall be provided with lock nut connection to the termination point enclosure.
- F. Splices and Terminations
 - 1. Ampacity and temperature rating of splices and connectors shall be equal to or greater than those of associated wires and cables.
 - 2. Make splices in branch circuit or feeder wiring from #12 to #10 with UL-listed, solderless screw on connectors rated 600 V.
 - 3. Make splices in branch circuit or feeder wiring above #10 with UL-listed 90°C, 600V, compression butt splice barrel equal to Burndy YS-L HYLINK.
 - 4. Conductor terminations shall be standard bolt-on lugs with hex screws listed for attachment of copper wire and cable to panelboards, switchboards, disconnect switches and other electrical equipment.
 - 5. Make terminations for stranded conductors on screw terminals with UL Listed 105°C, 600V PVC insulated barrel compression locking fork tongue terminal equal to Burndy TP-LF VINYLUG.
 - 6. Make bus terminations for conductors #6 and larger with UL-listed 90°C, 600V, compression standard barrel length lugs equal to Burndy YA-L for conductor sizes to #4/0. Connectors for cable 250 KCMil and larger shall be with UL-listed 90°C, 600V, compression long barrel length two hole lugs equal to Burndy YA-2N. Lugs shall be high conductivity seamless copper electro-tin plated for corrosion protection.

2.04 WIRING DEVICES AND PLATES

- A. Provide wiring devices by single manufacturer. Catalog designations of Cooper are specified, unless noted otherwise, to establish standards of quality for materials and performance. Colors of devices as specified below are White for standard applications. Refer to the drawings for color requirements that vary from White. Equal products by Leviton, Pass & Seymour or Hubbell will

be accepted. Provide published manufacturers cross-reference sheet highlighted with the device specified and that being submitted with all device product data for approval.

- B. Wall switches shall be of the totally enclosed tumbler type. Wiring terminals shall be spring loaded terminal screws for back or side wiring. Switches shall be rated 20-ampere 277 volt for use on alternating current only. The yoke shall have a grounding terminal with a green hex head screw. Pilot lights indicated shall consist of red lighted handle, illuminated when the switch is on.
- C. Toggle Switches shall be heavy duty, UL listed, specification grade as follows:
 - 1. Single-pole shall be No. 2221W
 - 2. Double-pole shall be No. 2222W
 - 3. Three-way shall be No. 2223W
- D. Receptacles:
 - 1. Receptacles shall be nylon faced with rigid, glass reinforced nylon bodies. Wiring terminals shall be spring loaded terminal screws for back or side wiring. Receptacles shall be rated 20-ampere 125 volt. The yoke shall have a grounding terminal with a green hex head screw.
 - 2. Duplex receptacles shall be UL Federal Specification WC-596 Specification Grade Extra Hard Duty 125V, 20A, 2 pole, 3 wire as follows:
 - a. General Use shall be No. 5362W (White)
 - b. General Use single receptacle shall be No. 5361W (White)
 - c. GFCI Interior shall be No. GF20W (White)
 - d. GFCI Exterior shall be GF20BK (Black) UL listed Weather Resistant
 - 3. Special purpose outlets shall be provided as indicated on the drawings at the ratings listed on the schedules and notes.
- E. Wiring Device Plates:
 - 1. Provide 0.032" nominal brushed Type 430 stainless steel device plates by the manufacturer of the wiring device for all flush mounted switches and receptacles installed in dry locations and where not subjected to physical abuse. Ganged plates shall be of one-piece construction to accommodate the required number of installed devices. Oversized plates to cover wall finish blemishes adjacent to the device box shall not be used.
 - 2. Provide heavy-duty cast aluminum horizontally mounted weatherproof covers for GFCI receptacles where weatherproof devices are specified equal to Hubbell No. WP26MH. Cover shall be attached to FS box with 4 screws and spring back to the closed position upon removal of the cord set. Fasteners chrome-plated brass.
 - 3. Receptacle device plates for other than 20 amp, 120 V, 2-wire, circuits shall be provided with typed clear plastic label (equal to P-Touch) mounted to the device plate indicating voltage characteristics, panelboard and circuit number of outlet

2.05 OUTLET BOXES

- A. Outlet and switch boxes on concealed work shall be at least 4" square, galvanized pressed steel conforming to UL 514A. Where installed in plaster, boxes shall be fitted with galvanized steel plaster covers of required depth to finish flush with finished wall or ceiling. Outlet boxes shall be by Steel City Electric Company, Appleton Electric Company, or approved equal.
- B. Outlet boxes installed in masonry walls or in concrete decking shall be UL Listed for the application.
- C. Outlet boxes for interior surface mounted locations where RGS is specified where exposed to moisture, at kitchen and cafeteria equipment, adjacent to water or steam connections, and where indicated as weatherproof on Drawings shall be cast malleable iron with an aluminum polymer enamel coating equal to Appleton Type FD. Conduit entries shall be threaded cast hubs. Device covers shall be coated malleable iron with moisture sealing gasket and stainless steel fasteners.
- D. Outlet boxes for exterior surface mounting shall be cast aluminum alloy with an aluminum polymer enamel coating equal to Appleton Type FD. Conduit entries shall be threaded cast hubs. Device covers shall be cast aluminum alloy with moisture sealing gasket and stainless steel fasteners.
- E. All boxes shall have at least one tapped and threaded grounding hole for connection of a 10-32 grounding screw.
- F. Box depth shall accommodate code required volume for the specified installation. Through wall boxes shall not be used.
- G. Outlet boxes for various systems including but not limited to fire alarm, paging and master clocks shall be sized as required by the manufacturer. Boxes shall be cast where exposed to physical damage or installed in an exposed exterior location.
- H. Floor outlets shall be heavy-wall cast iron bodies with edge frames and floor plates of polished bronze. Boxes shall be watertight and be fully adjustable before and after pouring. Provide insert floor plates with hinged covers for duplex receptacles or for telephone connection as shown on the drawings. Multi-gang boxes shall be provided with internal removable barriers for separation of different voltages. Provide carpet plates where required. Boxes shall be equal to Steel City 840 SC Series.

2.06 JUNCTION AND PULL BOXES

- A. Provide galvanized steel junction and pull boxes where indicated and as necessary to facilitate installation. Steel shall be minimum 16 gauge. Junction and pull boxes shall be of code required dimensions. Cover shall be of the same type and thickness material as the box construction.
- B. Junction and pull boxes intended for dry interior locations shall be NEMA 1 enclosures with accessible, removable screw-on covers. Covers shall be secured with corrosion-resistant screws with keyhole slots to accommodate easy removal.
- C. Junction and pull boxes intended for wet or exterior locations shall be NEMA 3R enclosures with hinged gasketed covers. Interior and exterior shall be finished with a gray enamel powder coat over the galvanized metal. Hinge shall be galvanized steel with stainless steel pin. Covers shall be secured with corrosion-resistant zinc plated lockable pull catches.
- D. Custom fabricated medium to large junction and pull boxes shall have internal structural steel bracing welded to form a rigid assembly adequate to maintain alignment and shape in shipment and installation.

2.07 SAFETY DISCONNECT SWITCHES

- A. Switches shall be three-pole heavy-duty type rated for 600V in NEMA 1 (interior dry applications) and NEMA 3R (exterior applications) enclosures unless noted otherwise on the drawings. All switches shall be horsepower rated and suitable for service entrance use. Provide with solid neutral where four wire circuits are indicated and with 200% solid neutral where neutrals are sized for 200% full load ampacity.
 - 1. Operating mechanisms shall be quick-make/quick-break. Current-carrying parts shall be high-conductivity copper. Contacts shall be silver-tungsten or plated. Provide positive pressure fuse clips and switch operating mechanism suitable for continuous use at rated capacity without auxiliary springs in current path. Switches shall withstand available fault current or let-through current before operating, without damage or rating change.
 - 2. Terminations shall be suitable for copper or aluminum conductors 60o/75o C rated. Clear shielding shall prevent accidental contact with energized line terminals.
 - 3. The cover shall be mechanically interlocked to prevent access unless the disconnect is in the OFF position. A defeater shall be provided to bypass this interlock. With the door open, an interlock shall be provided to prevent inadvertent closing of the disconnect. Padlocking facilities shall be provided to positively lock the disconnect in the OFF position with from one to three padlocks with the door open or closed.
 - 4. The enclosure shall be given a phosphatizing pretreatment. The paint finish shall be manufacturer's standard color and shall pass 600 hours of corrosion resistance testing per ASTM B 117.
- B. Fused switches shall have short circuit ratings no less than 100,000 amperes RMS, with capabilities to 200,000 amperes when used with Class J, L or R fuses at 480V from 400A to 1200A.
- C. Manual Motor Starters shall have quick make, quick break toggle mechanisms with allowance for up to 10% field adjustment in nominal overload heater values. Manual Motor Starters shall be NEMA 1 (interior dry applications) and NEMA 3R (exterior applications) enclosed unless noted otherwise on the drawings. Provide Cutler Hammer type MS manual starters for applications up to 1 HP at 240V single phase and type B100 for up to 1 HP at 277V single phase.

2.08 MOTOR STARTERS

- A. The Motor Starters shall be 600 volt class NEMA rated suitable for operation on a three-phase, 60-Hertz system. The system operating voltage shall be as indicated on the drawings.
- B. Combination Starters
 - 1. Combination starter units shall be full voltage non-reversing, unless shown otherwise, and shall utilize Motor Circuit Protectors. Minimum size shall be NEMA Size 1. Maximum across-the-line starter shall be NEMA size 2 unless noted otherwise on the Drawings. Starter units shall have three (3) hand reset overload relays, bi-metallic type, ambient compensated. Hand reset shall be by insulated button on outside of starter unit enclosure.
 - 2. Each combination unit shall be rated 100,000 A/C symmetrical at 480V. The HMCP shall provide adjustable magnetic protection and be provided with pin insert to stop magnetic adjustment at 1300% motor nameplate full load current to comply with NEC requirements. All HMCP combination starter units shall have a "tripped" position on the unit disconnect and a push-to-test button on the HMCP. Type HMCP motor circuit protectors shall include transient override feature for motor inrush current.
 - 3. Line starters shall be electrically operated, electrically held, three-pole assemblies with arc extinguishing characteristics and shall have silver-to-silver renewable contacts. They

shall have provisions for a total of eight NO or eight NC auxiliary contacts and shall include NO/NC contacts as scheduled on the drawings. Overload relays shall be thermal bimetallic, reset from outside enclosure by insulated button.

4. Provide fused (two primary and one secondary) control power transformer, push to test LED indicating lights (green power available/energized and red/running), Hand-Off-Automatic (HOA) selector switch and two normally open and two normally closed contacts for each starter, unless scheduled otherwise on Drawings. Device panel mounted on the face of the starter shall accommodate a minimum of six oil-tight pilot control devices.
5. An operating mechanism shall be mounted on the primary disconnect of each starter unit. It shall be mechanically interlocked with the unit door to prevent access unless the disconnect is in the OFF position. A defeater shall be provided to bypass this interlock. With the door open, an interlock shall be provided to prevent inadvertent closing of the disconnect. Padlocking facilities shall be provided to positively lock the disconnect in the OFF position with from one to three padlocks with the door open or closed.

C. Manual Motor Starters – Refer to Safety Disconnect Switches

D. Enclosure

1. The type of enclosure shall be in accordance with NEMA Standards for Type 1A with gasketed doors.
2. The enclosure shall be given a phosphatizing pretreatment. The paint finish shall be manufacturer's standard color and shall pass 600 hours of corrosion resistance testing per ASTM B 117.

E. Motor Starters shall be as manufactured by Cutler-Hammer, General Electric, Siemens or Square D.

2.09 PANELBOARDS

A. General

1. Provide dead-front lighting and power panelboards where shown on drawings and as scheduled.
2. Panelboards shall meet or exceed requirements of NEMA Standard Publication PB-1, and UL-50 and 67. Panelboards shall be UL-listed.
3. Where panelboards are used as service entrance equipment, they shall comply with all NEC and UL requirements for service. The panelboard shall include a UL service entrance label, incoming line isolation barriers and a removable neutral bond to ground for solidly grounded wye systems.
4. Enclosures shall be at least 20 inches wide made of galvanized steel. Gutter space shall be in accordance with NEC requirements for the specified combination of devices and accessories. Fronts shall be reinforced steel with concealed hinges and concealed trim adjusting screws. Trim clamps are unacceptable. Where two section panels are required, bolt boxes together to form one unit. Trim shall be two-piece construction with doors of equal size over each section. Trims shall be cleaned, primed and painted gray ANSI 61.
5. For panelboards up to 400 amps, provide cabinets with flush hinges and combination catch and lock to cover circuit breaker handles. Provide a directory card with a clear plastic cover mounted inside the door. Power and lighting panels shall have heavy-duty,

continuous, section vertical-hinged to box section for access to wiring gutters in addition to trim door. All locks shall be keyed alike. Panelboards greater than 400 amps shall be provided with a four-piece front to cover wiring gutter and wiring access areas.

6. Nameplates shall be in accordance with other sections of this specification.
7. The manufacturer shall warrant equipment to be free from defects in materials and workmanship for 1 year from date of installation or 18 months from date of purchase, whichever occurs first.
8. Panels shall be GE A- Series for 400 A and below unless more than (1) 125 amp or larger branch breaker and/or space is specified. Spectra Power panelboards shall be provided for all applications greater than 400 amps and to accommodate multiple branch breakers greater than 125 amps. Approved equal panelboards by Cutler-Hammer, Siemens or Square D will be considered.

B. Bussing

1. Main bus bars of panels shall be copper, rated to carry at least full rating of the panel as identified on the schedules.
2. Split solid neutral bus, with rated capacity equal to the phase bus, shall be plated and located in main compartment for all incoming neutral cables to be same length. Neutral bus shall be 200% rated where double sized neutrals are indicated and/or where the panel is supplied via a K-rated transformer.
3. Provide separate equipment ground bus for each panelboard. Where an isolated ground is specified, provide an additional isolated ground bus, which shall be insulated from the panel enclosure and equipment ground.
4. Panelboards shall have a short circuit current rating equal to or greater than circuit breaker AIC ratings schedule on the Drawings. Where series ratings are allowed, as per the schedule on the Drawings, a label shall be affixed to the panel stating the conditions of the UL Series rating including:
 - a. Size and type of upstream device
 - b. Branch devices that are acceptable
 - c. UL Series short-circuit rating
5. All lugs shall be UL listed tin-plated aluminum suitable for copper or aluminum cable for sizes indicated on the drawings. Provide oversized lugs to accommodate designed cable sizes or increase gutter space to allow use of solid stud compression lugs where necessary. All terminations shall be suitable for 75 degree C cable.
6. Provide bus connections for future overcurrent devices with suitable insulation and bracing to maintain proper short circuit rating and voltage clearances. All required hardware shall be installed and be in place for ready insertion of future breaker without the need to relocate adjacent units. Future spaces shall accommodate frame sizes up to 50% of the main bus ampacity.

C. Overcurrent Devices

1. Molded case circuit breakers shall be bolt-on devices with thermal and magnetic trip elements in each pole. Multi-pole breakers shall have internal common trip crossbars for simultaneous tripping of each pole. Trip units shall be thermal magnetic unless solid state sensing specifically indicated on the drawings.

2. All breakers shall have handle trip indication and a trip indicator in window of circuit breaker housing.
3. Three pole breakers with ampere ratings greater than 150 amperes shall have interchangeable rating plugs.
4. Internal accessories shall be UL Listed for field installation without removing the circuit breaker cover. Internal accessories shall be common to all frame sizes. Shunt trips, undervoltage releases, auxiliary switches, and bell alarms shall be available for all breakers and shall install from the front of the circuit breaker or molded-case switch.
5. Retrofit panelboards shall be fully rated assemblies custom built to bolt directly into existing enclosures. Trim and door shall attach directly to the interior assembly.

D. Submittals

1. The manufacturer shall provide copies of the following documents for review and evaluation in accordance with general requirements of Division 1 and Division 16:
 - a. Product Data on specified product
 - b. Shop Drawings on specified product
 - c. Certified trip curves for each specified product
 - d. Nameplate list
 - e. Short circuit and coordination study shall be submitted with the equipment shop drawings to ensure rating conformity to study conclusions. Submittals made without the study shall be rejected.

2.10 STANDBY NATURAL GAS ELECTRIC GENERATING SYSTEM

A. General

1. Provide natural gas engine-driven electric generating system rated for emergency standby service. The automatic transfer switch(es) specified in other sections of this specification shall be supplied by the generator set manufacturer in order to establish and maintain a single source of system responsibility and coordination. Refer to the drawings for service ratings at 60 Hz.
2. The system shall automatically start and accept full rated load within ten (10) seconds of being signaled to start.
3. Engine generator and accessories including control panel, engine starting batteries and output circuit breaker(s) shall be mounted within a sound attenuated weatherproof enclosure. Refer to the enclosure specification section for additional details.
4. Specified kW is for continuous service during utility source interruption, as established in ISO 8528-3 at 86 degrees F. Rating shall be substantiated by manufacturer's standard published curves. Special and maximum ratings will not be accepted.
5. Supplier shall have been engaged regularly in generator or engine manufacture, or both, for at least twenty-five years. The generator manufacturer and dealer shall be ISO 9001 certified.

6. The supplier shall maintain a full time in-house parts and service organization so that parts and service are readily available, 24-hours/day 7-days/week. Qualified, factory trained service personnel shall be available within 4 hours of notification.
7. Prototype testing shall certify the acceptable performance of the generating set series. The test shall prove acceptance, as a system, of the design and integration of all components. Proposed system shall be a current factory production model. Prototype testing shall confirm:
 - a. Fuel consumption at $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and full load.
 - b. Exhaust emissions.
 - c. Mechanical and exhaust noise levels.
 - d. Governor speed regulation at $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and full load.
 - e. Generator temperature rise in accordance with NEMA MG1-22.40
 - f. Harmonic analysis, voltage waveform deviation and telephone influence factor.
 - g. Generator short circuit capacity.
 - h. Cooling system capacity.
8. Provide manufacturer's load analysis calculation confirming that the generating set submitted is compatible with loads to be applied.
9. The proposed generator set shall be in compliance with the Commonwealth of Massachusetts Emission regulations at the time of installation/commissioning.
10. The manufacturer's warrantee shall be for a minimum period of five (5) years from the date of initial system start-up and acceptance or 1500 operating hours, whichever occurs first. The warrantee shall include repair parts, expendables (lubricating oil, filters, antifreeze, etc.), labor and travel expenses necessary for repairs at the job site. The supplier shall provide a trailer mounted portable engine generator with accessories (including interconnection to the electrical distribution system) to provide backup power for any warrantee related system outages that exceed five calendar days.
11. Engine driven electrical generating systems shall be as manufactured by Caterpillar, Cummins or Kohler.

B. Engine

1. The engine shall be natural gas fueled, four (4) cycle, water-cooled, either vertical in-line or V-type, operating with nominal speed not exceeding 1800 RPM
2. All fuel piping shall be black iron or flexible fuel hose rated for this service. Flexible fuel lines rated 300 degrees F and 100 PSI. Natural gas shall have a minimum pressure of 7 inch of H₂O or water
3. The engine shall be equipped with a rail-mounted, engine-driven radiator with blower fan and all accessories. The cooling system shall be sized to operate at full load conditions and 110°F ambient air entering the room or enclosure (where an enclosure is specified) without derating the unit and permanent anti-freeze solution to protect equipment to – 15°F. The generator set supplier is responsible for providing a properly sized cooling system based on the enclosure static pressure restriction.

4. Provide thermostatically-controlled engine jacket water heater, be sized by the manufacturer to maintain jacket water temperature at 90°F, 208 V, single-phase, 60 Hz mounted, piped and prewired to terminal strip.
5. Provide lubricating oil pressure gauge, water temperature gauge, battery charge rate ammeter and running time meter mounted in common panel with engine controls, alternator controls and alternator instruments.
6. A critical type silencer, companion flanges, and flexible stainless steel exhaust fitting properly sized shall be furnished and installed according to the manufacturer's recommendation. Exhaust pipe size shall be sufficient to ensure that exhaust back pressure does not exceed the maximum limitations specified by the engine manufacturer. The silencer shall be mounted so that its weight is not supported by the engine nor will exhaust system growth due to thermal expansion be imposed on the engine. The muffler and all indoor exhaust piping shall be "lagged" by the Contractor to maintain a surface temperature not to exceed 150°F. The insulation shall be installed so that it does not interfere with the functioning of the flexible exhaust fitting.

C. Alternator

1. The synchronous generator shall be a single bearing, self-ventilated, drip-proof design in accordance with NEMA MG 1 and directly connected to the engine flywheel housing with a flex coupling to ensure permanent alignment. The insulation material shall meet NEMA standards for Class H insulation and be impregnated in a polyester varnish or vacuum impregnated with epoxy varnish to be fungus resistant. Temperature rise of the rotor and stator shall not exceed NEMA class F (130 °C rise by resistance over 40 °C ambient).
2. The excitation system shall be of brushless construction. The brushless exciter shall be independent of main stator windings (either permanent magnet or auxiliary windings) shall consist of a three-phase armature and a three-phase full wave bridge rectifier mounted on the rotor shaft. Surge suppressors shall be included to protect the diodes from voltage spikes. Generator shall have the ability to sustain short circuit current of 300% of rated current to allow protective devices to operate.
3. The automatic voltage regulator (AVR) shall maintain generator output voltage within +/- 1.0% for any constant load between no load and full load. The regulator shall be three phase sensing, totally solid state design, which includes electronic voltage buildup, volts per Hertz regulation, overexcitation protection, loss of sensing protection, temperature compensation, shall limit voltage overshoot on startup, and shall be environmentally sealed. System shall reduce voltage automatically if load demand exceeds engine capacity and remove excitation when generator is overloaded for more than 10 seconds. Voltage regulator shall be, volts-per-hertz and include over voltage and under voltage protection.
4. The alternator output shall be wired via a generator mounted 3 pole molded case circuit breaker, trip rating as indicated on the drawings. Breaker shall utilize an electronic solid state LSI trip. Unit breaker shall be housed in a steel NEMA 1 enclosure mounted on a separate support stand vibration isolated from the engine / generator arrangement. Bus bars, sized for the cable type shown on drawing, shall be supplied on the load side of breaker.

- D. Provide spring vibration mounts between engine generator set and structural sub-base as recommended by equipment manufacturer. Unit shall be suitable for installation on any level surface.

E. Starting

1. A DC electric starting system with positive engagement shall be furnished. The motor voltage shall be as recommended by the engine manufacturer.
 2. Provide 24 V lead acid batteries as recommended by equipment manufacturer, no less than 225 A-hour capacity. Provide unit mounted battery rack, hold down and battery cables.
 3. A current limiting battery charger shall be furnished to automatically recharge batteries equal to LaMarche Model A46-20-24V. Charger shall float at 2.17 volts per cell and equalize at 2.33 volts per cell. It shall include overload protection, silicon diode full wave rectifiers, voltage surge suppressor, DC ammeter, DC voltmeter, and fused AC input. AC input voltage shall be 120 volts, single phase. Provide 0- to 24-hour equalizing timer and low and high DC voltage alarm relays.
- F. Provide a generator set mounted control panel for complete control and monitoring of the engine and generator set functions. Panel shall include automatic start/stop operation, cycle cranking, AC metering (0.5% true rms accuracy) with phase selector switch, shutdown sensors and alarms with horn and reset, adjustable cool-down timer, emergency stop push-button and engine run time meter (non-resettable).
1. Critical components shall be environmentally sealed to protect against failure from moisture and dirt. Components shall be housed in a NEMA 1/IP22 enclosure with hinged door.
 2. The panel itself shall be mounted on a separate support stand isolated from the engine / generator arrangement. Panel / breaker arrangements mounted on the generator set in such a way that access to the AC Generator terminal box is restricted in any way whatsoever are not acceptable.
 3. Provide the following readouts:
 - a. Engine oil pressure
 - b. Coolant temperature
 - c. Engine RPM
 - d. System DC Volts
 - e. Engine running hours
 - f. Generator AC volts
 - g. Generator frequency
 - h. Generator AC amps
 4. Provide the following indications for protection and diagnostics according to NFPA 110 Level 1:
 - a. Low oil pressure
 - b. High water temperature
 - c. Low coolant level
 - d. Overspeed
 - e. Overcrank

- f. Emergency stop depressed
 - g. Approaching high coolant temperature
 - h. Approaching low oil pressure
 - i. Low coolant temperature
 - j. Low voltage in battery
 - k. Control switch not in auto position
 - l. Low fuel pressure
 - m. Battery charger AC failure
 - n. High battery voltage
 - o. Two (2) Spare Points
5. Provide the following control functions:
- a. Terminals located inside the control panel for REMOTE EMERGENCY STOP
 - b. ON / OFF / AUTO control switch
6. Provide a minimum of 4 programmable output dry contacts for connection to the Owner's security or ATC system. Three of the 4 outputs shall be programmed to alarm "Engine Running", "Summary Alarm" and Generator not in Automatic".
- G. Provide a surface mounted remote annunciator to meet the requirements of NFPA 110, Level 1, installed in enclosure suitable for surface mounting. The annunciator shall provide remote annunciation of all points stated above and shall incorporate ring-back capability so that after silencing the initial alarm, any subsequent alarms will sound the horn.
- H. Provide a remote manual stop break-glass station to allow emergency shutdown of the unit.
- I. Submittals
- 1. The manufacturer shall provide copies of following documents to the Owner for review and evaluation in accordance with general requirements of Division 1 and Division 16:
 - a. Factory published specification sheet indicating standard and optional accessories, ratings, etc. Weights of all equipment shall be highlighted.
 - b. Manufacturer's catalog cut sheets of all auxiliary components such as battery charger, silencer, exhaust flex, main circuit breaker, etc.
 - c. Dimensional elevation and layout drawings of the generator set, enclosure and transfer switchgear and related accessories. Concrete pad recommendation, layout and stub-up locations of electrical and fuel systems shall be included.
 - d. Engine mechanical data, including heat rejection, exhaust gas flows, combustion air and ventilation air flows, noise data, fuel consumption, etc.
 - e. Generator electrical data including resistances, reactances, time constants, temperature and insulation data, thermal damage curve, cooling requirements, excitation ratings, voltage regulation, voltage regulator, efficiencies, waveform distortion and telephone influence factor.

- f. Automatic transfer switch(es).
 - g. Certified trip curves for each circuit breaker.
 - h. Certified copies of all Type (Design) and Verification Test Reports
 - i. Interconnect wiring diagram of complete emergency system, including generator, switchgear, battery charger, remote alarm indications.
 - j. Control panel schematics.
 - k. Calculations indicating acceptable performance of the submitted unit starting and running the specified load.
 - l. Third-party certified noise test data on an equal or similar enclosure design.
- 2. Submit operation and maintenance data based on factory and field-testing, operation and maintenance of specified product.
 - 3. Submit test report confirming acceptance of all Installation inspections and tests as outlined in Part 3 of this specification.
 - 4. Manufacturer's and dealer's written warranty.

2.11 FIRE ALARM – MODIFICATION TO EXISTING SYSTEM

A. General

- 1. Provide the illustrated changes to the existing addressable fire detection, alarm and control system with horn/strobe and speaker/strobe signaling devices in compliance with all applicable codes and authorities having jurisdiction.
- 2. The system design and installation shall conform to the following standards:
 - a. All new equipment shall be UL listed for its intended purpose and cross listed for addition to the existing system.
 - b. All applicable NFPA standards, including but not limited to: 70, 72, 90A, 92A, and 101.
 - c. State Building Code.
 - d. The Americans with Disabilities Act (ADA)
 - e. All requirements of the Authority Having Jurisdiction (AHJ)
- 3. The installer and manufacturers warrantee shall be for a minimum period of one (1) year from the date of the final acceptance test approval.
- 4. Equipment shall be by Notifier.

B. Sequence of Operation

- 1. Refer to the Sequence of Operations Matrix on the plans and the Fire Protection Narrative for the intended system operation.

C. Control

- 1. General Requirements

- a. New addressable loop wiring (Signaling Line Circuits - SLC) shall be wired in a Class B, Style 4 OR Class A, Style 6 method. Each circuit shall allow for a minimum of 25% additional devices. Where connecting into an existing loop, match existing. No tee tapping allowed.
- b. New non-addressable loop wiring (Initiating Device Circuits - IDC) shall be wired in a Class A method. Where connecting into an existing loop, match existing. No tee tapping allowed.
- c. New audible and visual circuits (Notification Appliance Circuits - NAC) shall be wired in a Class A method. Where connecting into an existing loop, match existing. No tee tapping allowed. Each circuit shall allow for a minimum of 25% additional devices. Provide a minimum of two (2) circuits per floor or area, alternately wiring adjacent notification appliances between circuits.

D. Initiating Devices and Accessories

- 1. Provide addressable detectors as shown on the drawings. Detectors shall be connected to the addressable loop with two wires. All detectors shall incorporate built-in identification for the system to automatically identify various types of sensors. Detectors shall utilize a flashing LED which denotes normal operation, and latched LED which indicates an alarm condition. All common types of analog detectors shall be interchangeable with common twist-lock bases. The standard base shall have a supervised LED output, and optional relay and isolator bases shall be available.
- 2. Analog sensors shall provide indication to the control panel that a detector requires maintenance, and shall operate in stand-alone mode in the event of an addressable loop communications failure.
- 3. Analog Photoelectric Smoke Detectors shall be continually monitored to measure any change in their sensitivity because of the environment (dirt, air temperature, humidity, etc.), and shall allow changes in sensitivity levels within the UL approved sensor's range. the photoelectric detector shall consist of a dust resistant, field cleanable photo chamber with microprocessor based solid state electronics.
- 4. Analog Ionization Smoke Detectors shall be continually monitored to measure any change in their sensitivity because of the environment (dirt, air temperature, humidity, etc.), and shall allow changes in sensitivity levels within the UL approved sensor's range. The ionization detector shall consist of self-compensating dual ionization chamber, microcomputer chip and solid state electronics.
- 5. Analog Multi-Sensing Detectors shall employ photoelectric, ionization and thermal sensing principles. Sensors shall allow changes in sensitivity levels within the UL approved sensor's range.
- 6. Analog Thermal detectors shall monitor the ambient temperature from 32 to 158° F, and provide fast response to rapid increases in temperature. Rate of rise detection rate and fixed setpoint shall be panel selectable.
- 7. Monitor Modules shall be provided to monitor and connect conventional initiating devices onto the addressable loop.

E. Submittals

- 1. The manufacturer shall provide copies of the following documents for review and evaluation in accordance with general requirements of Division 1 and 16:

- a. Point to point wiring diagrams of the entire system including all conductor quantity and sizing, labeling (numerical and color coding) and interconnections. Each initiating device and notification appliance shall be given a unique identification. This identification and visual notification appliance devices and audible notification appliance tap settings shall be illustrated on the floor plans and submitted for approval with the wiring diagrams.
 - b. Individual device interconnection diagrams. Panel layouts shall indicate module placement and spare capacity allowance for future expansion.
 - c. Manufacturers catalog cut sheets of all components and devices.
 - d. Battery capacity calculations clearly indicating required and spare capacity.
 - e. Power supply capacity calculations including each circuit load, voltage drop and spare capacity.
2. Submission of certification records for qualifications of the technicians performing final connection and testing.
 3. Submit written test report in accordance with NFPA72 Section 10.6 for notification of successful completion of each required test and a system Record of Completion in accordance with NFPA72 Section 4.5. Provide floor plan illustrating ambient and alarm sound levels to document notification appliance testing.
 4. Submit operations manual detailing all functions and operations of the system. User operating instructions shall be provided prominently displayed on a separate sheet located next to the control unit in accordance with UL Standard 864.
 5. Submit maintenance manuals and recommended spare parts list required to conform to NFPA maintenance guidelines. Instructions shall include but not be limited to:
 - a. Instructions for replacing any components of the system, including internal parts.
 - b. Instructions for periodic cleaning and adjustment of equipment with a schedule of these functions.
 - c. A complete list of all equipment and components with information as to the address and telephone number of both the manufacturer and local supplier of each item.
 6. As-built drawings shall include all device addresses and alphanumeric descriptors assigned in the control panel.

2.12 AUTOMATIC TRANSFER SWITCH

A. General

1. Automatic transfer switch shall consist of power transfer unit and controller interconnected to provide complete automatic operation. Automatic transfer switch shall be mechanically held and electrically operated by single-solenoid mechanism energized from the source to which load is to be transferred. Switch shall be rated for continuous duty and shall be inherently double throw. Switch shall be mechanically interlocked to prohibit simultaneous closure of both normal and emergency contacts. Automatic transfer switch shall be suitable for use with engine or turbine-driven emergency generator and utility sources. Entire assembly shall be contained in a NEMA 1 Enclosure.

2. Main contacts shall be of silver composition. Contacts rated 600A and above shall have segmented blow-on construction and be protected by separate arcing contacts for withstand capability. Operating transfer time in either direction shall not exceed one-sixth of one second. Automatic transfer switches with components of molded-case circuit breakers, contactors or components not designed for continuous duty or repetitive load transfer switching will not be accepted.
3. The neutral contacts shall be fully rated overlapping where four-pole design is required by the Drawings.
4. The ATS shall be rated to close on and withstand the available fault current at the transfer switch terminals.
5. Contacts, coils, springs and control elements shall be inspectable and removable from front of transfer switch without major disassembly or disconnection of power conductors. A manual operating handle shall be provided to permit full movement of contacts throughout their full travel for inspection and service.
6. Automatic transfer switch controller shall be a single microprocessor with the ability to be networked through an optional serial communications port. An LCD display and keypad shall provide access to all available data and function for setting all operational parameters. Control module shall have protective cover and shall be mounted separately from transfer switch. Sensing and control logic shall be solid-mounted on plug-in printed circuit boards. Printed circuit boards shall be keyed to prevent incorrect installation. Provide industrial control grade plug-in interfacing relays with dust covers.
7. Automatic transfer switch shall meet NEMA ICS 2-447, NFPA 110 and UL-1008 standards.
8. The manufacturer's warrantee shall be for a minimum period of two years from the date of initial startup and acceptance. The warrantee shall include all labor, parts and travel expenses necessary for repairs at the job site.
9. The automatic transfer switch shall be 300 Series as manufactured by ASCO or approved equal from Russelectric or GE-Zenith.

B. Controller

1. Voltage sensing shall be close differential three phase line-to-line. Pickup shall be adjustable from 85% to 100% of nominal; dropout voltage shall be adjustable from 78% to 98% of pickup value. Transfer to emergency shall be initiated upon reduction of normal source to 85% of nominal voltage and retransfer to normal shall occur when normal source reaches 95% of nominal.
2. Time delay to override momentary normal source outages shall delay transfer switch signals and engine starting signals. Time delay shall be field-adjustable from 0.5 to 6 seconds and factory set at 1 second.
3. Time delay on retransfer to normal source shall be bypassed automatically if emergency source fails and normal source is available. Time delay shall be field-adjustable from 0 to 60 minutes.
4. Unloaded running time delay for emergency generator cooldown shall be field-adjustable from 0 to 60 minutes.
5. Time delay on transfer to emergency shall be field-adjustable from 0 to 5 minutes for controlled timing of load transfer to emergency, where indicated.

6. A time delay activated output signal (one NO and one NC contact) shall be provided to drive external relays for selective load shedding. The controller shall be adjustable from 0-5 minutes in any of the following modes:
 - a. Prior to transfer only.
 - b. Prior to and after transfer.
 - c. Normal to emergency only.
 - d. Emergency to normal only.
 - e. Normal to emergency and emergency to normal.
 - f. All transfer conditions or only when both sources are available.
 - g. The controller shall include capabilities for optional Closed Transition and Delayed Transition operation:

C. Auxiliaries

1. Provide gold-plated contact that closes when normal source fails for initiating engine starting, rated 10 A, 32 V DC.
2. Provide gold-plated contact that opens when normal source fails for initiating engine starting, rated 10 A, 32 V DC.
3. Provide push to test LED indicators, green to indicate when automatic transfer switch is connected to normal source and red to indicate when automatic transfer switch is connected to emergency source.
4. Provide two auxiliary contacts that are closed when automatic transfer switch is connected to normal and two auxiliary contacts that are closed when automatic transfer switch is connected to emergency. Contacts shall be rated 10 A, 480 V AC, 60 Hz.

D. Provide engine generator exerciser, which shall allow up to seven different exercise routines. The user shall be able to do the following to each routine:

1. Enable or disable the routine.
2. Enable or disable transfer of the load during the routine.
3. Set the start time, day, week and period.
4. Set the duration of the run.

E. In-Phase Motor Transfer

1. Provide in-phase monitor to inhibit transfer of loads from emergency to normal sources and vice versa until sources are in phase.
2. Transfer shall be initiated only when power sources are approaching synchrony and when relative phase angle crosses setpoint towards 0°.
3. In-phase monitor shall operate accurately regardless of which source is at highest frequency. In-phase monitor shall be solid state, with gated silicon transistor circuitry to ensure positive and crisp operation independent of variations in voltage input of 70% to 110% of nominal, with temperature between 0 and 45°C.

4. Repetitive accuracy throughout temperature and voltage ranges shall not exceed $\pm 30^\circ$ (electrical) of setting. Monitor shall be capable of operating within frequency range of ± 3 Hz of nominal. Provide manual bypass circuit.
- F. Where an in-phase monitor is not manufactured for the submitted transfer switch, the following changes shall be incorporated into the design:
1. Transfer switch shall be double-throw activated by dual electrical operators energized momentarily and connected to transfer mechanism with over-center linkage. Minimum transfer time shall be 400 milliseconds.
 2. Provide for time delay between opening closed contacts and closing open contacts sufficient to demagnetize loads.
 3. Motor and transformer loads shall be re-energized with normal in-rush current after transfer.
 4. Switch shall transfer in either direction with 70% rated voltage applied to terminals.
- G. Submittals
1. The manufacturer shall provide copies of following documents to the Owner for review and evaluation in accordance with general requirements of Division 1 and Division 16:
 - a. Factory published specification sheet indicating standard and optional accessories, ratings, etc.
 - b. Dimensional elevation and layout drawings of automatic transfer switch and related accessories.
 - c. Certified copies of all Type (Design) and Verification Test Reports
 - d. Interconnect wiring diagram of complete system.
 - e. Control panel schematics.
 2. Submit operation and maintenance data based on factory and field-testing, operation and maintenance of specified product.
 3. Manufacturer's and dealer's written warranty.

PART 3 - EXECUTION

3.00 DEMOLITION

- A. General
1. The Electrical Contractor shall visit the site before submitting his bid to familiarize himself with the existing conditions and the extent of the work. No extra compensation will be allowed for work required to be performed or to overcome existing conditions, by failure to visit the site.
 2. The Electrical demolition work shall be performed by the Electrical Contractor in cooperation with the other trades and as scheduled and approved by the Owner's Representative.

3. The locations of existing equipment to remain including piping, ductwork, conduits, etc., are shown in an approximate way only. The Contractor shall determine the exact location of all existing equipment before commencing work.
4. Power outages caused by demolition that affect other areas shall be held to a minimum. Shutdowns shall be coordinated with the users and the Owner. Night, weekend and/or Holiday time required to perform electrical demolition work or new electrical work shall be carried as part of the Contract Cost.

B. Scope

1. The architectural drawings illustrate the full extent of the scope of demolition. Disconnect and make safe all electrical equipment identified for removal on the Electrical, HVAC, Plumbing and Fire Protection plans. The electrical scope may extend beyond the area defined by the architectural demolition limits to fully comply with various requirements of these specifications.
2. The electrical demolition plans and details indicate the general scope and are not intended to show all items to be removed or retained. Devices and equipment located on walls and/or ceilings to be removed shall be disconnected and made safe. The Electrical Contractor shall notify the Owner's Representative of any unanticipated hidden conditions encountered during demolition.
3. The Electrical Contractor shall circuit trace and label all existing branch circuits and feeders within the area of demolition scope prior to de-energizing and disconnection. All circuits within panelboards identified for removal shall be traced and labeled to ensure that no area outside the demolition scope limit is affected.
4. The Electrical Contractor shall identify all branch circuits, feeders and system components, which are to remain within the area of demolition scope. There shall be no interruption of service to any area outside the scope limits without approval from the Owner's Representative. Existing equipment to remain shall be left in a code compliant manner.
5. The Electrical Contractor shall de-energize and remove all conductors and raceways to their points of origin within the area of demolition scope. Items identified for demolition shall not be abandoned in place. Raceways that enter masonry walls and floors shall be cut flush at the surface for patching by others. All circuit breakers associated with the demolition scope shall be de-energized and labeled spare.
6. The Electrical Contractor shall be responsible for the repair of all systems or building components damaged during the execution of the work. Damage shall include but not be limited to destruction or disposal of items intended to remain or to be salvaged.
7. The Electrical Contractor shall temporarily support all items to remain that are affected by the demolition of building structural components (walls, ceilings, etc.). Temporarily supported items shall be permanently supported and installed when finalized structures are in place.
8. The existing fire alarm system shall remain fully functional during the entire demolition and construction period. Reuse of existing fire alarm system raceways shall not be allowed. All required system shutdowns shall be coordinated with and approved by the Owner's Representative and the Authority Having Jurisdiction. Demolition of the existing system shall not commence until the new system has been completely installed, tested and approved by the Authority Having Jurisdiction.

9. All demolition scope associated with low voltage systems including but not limited to telephone, data, security, paging, CCTV, etc. shall be included.
- C. Disposal
1. All removed items shall be legally disposed of unless identified for reuse. Refer to Part 1 of this specification for requirements for Hazardous Material disposal.
 2. The Owner's Representative shall inspect all retained items prior to placement in the identified storage location by the Electrical Contractor . Selected items will be disposed at no additional cost to the project.

3.01 IDENTIFICATION

- A. Nameplates
1. Provide nameplates on all equipment listed in other sections of this specification including but not limited to switchboards, substations, panelboards, transformers, junction and pull boxes, disconnect switches, motor starters and motor control centers, contactors, time clocks, remote control stations, fire alarm panels, smoke detector remote test/alarm stations and fire alarm annunciators.
 2. Nameplates shall designate equipment tag number as defined on the drawings, system voltage where applicable, circuit number, device controlled and system function. Refer to typical nameplate detail on the drawings for additional requirements.
 3. Submit a complete list of proposed nameplates prior to order to ensure conformance to design criteria. Submittal shall include nomenclature, size and layout of each tag.
- B. Equipment Identification
1. Equipment identification designations shall be taken from equipment schedules and coordinated with the Owner's facility group to assure designations match up with Owner's maintenance management system identification database.

3.02 RACEWAYS AND CONDUIT

- A. General
1. Unless specified or shown on Drawings otherwise, install raceways and conduits concealed. Raceways and conduits may be run exposed on unfinished walls and basement ceilings with exposed structure, in mechanical rooms, electric rooms, attics and roof spaces.
 2. Run concealed raceways and conduits in as direct lines as possible with minimum number of bends of longest possible radius. Install exposed raceways and conduits parallel to or at right angles to building lines.
 3. Raceway and conduit runs shall be mechanically and electrically continuous from supply to outlet. Conduit shall enter and be secured to metallic enclosures with lock nut and bushing inside. Provide additional exterior lock nut for RGS connections. Bushings shall be the bonding type for conduit connections to metallic enclosures with concentric or eccentric knockouts. Lock nuts and bushings will not be required where conduits are screwed into threaded hubs.
 4. Size raceways and conduits as required by NEC unless oversized raceways and conduits are shown on the Drawings. Raceways and conduits shall be 3/4" minimum.

5. Install conduit systems complete before installation of conductors. Blow through and swab after plaster is finished and dry, and before conductors are installed.
6. Raceways and conduits supports shall be rigidly attached to the building structure utilizing corrosion resistant components suitable for use with the selected raceway or conduit. Refer to the seismic restraint sections of this specification for any additional requirements.
7. Field bending, cutting and threading shall be executed with the proper tools, resulting in bends and shortened conduits and raceways that are equivalent to factory fabricated and purchased components.
8. Provide standoff clips for conduits on exterior and wet location walls.
9. Protect all vertical conduit runs from the entrance of foreign material before installation of conductors and the final closure of the raceway system. All spare conduits (vertical and horizontal runs) shall be sealed with a bushing and appropriate insert to prohibit entrance of debris or vermin. Affix a label that indicates "Spare Conduit to _____" at each seal. Label shall be in accordance with the labeling section of this specification.

B. Rigid Galvanized Steel (RGS) Conduit

1. RGS may be used for all raceway applications outlined for EMT and PVC. RGS shall be used in locations where subject to accidental damage or abuse and for all above grade exterior applications unless other wiring methods are specified on the drawings. All circuit conductors in excess of 600 V shall be installed in RGS.
2. RGS shall not be used in corrosive environments.
3. All RGS fittings shall be threaded. Utilize Erickson couplings where joining two threaded conduits that can not be rotated.

C. Intermediate Metal Conduit (IMC) may be used in any application, with same requirements, where RGS is allowed except for circuits operating at more than 600 V.

D. Electrical Metallic Tubing (EMT)

1. EMT may be used for lighting and receptacle branch circuits, telephone, fire alarm, communications, signal and instrumentation circuits and for control circuits. EMT may be used in masonry walls, above hung ceilings, in equipment rooms, in mechanical and electrical chases and closets, in exposed locations along ceilings or walls above normal traffic level and where not subject to accidental damage or abuse.
2. EMT shall not be used in exposed applications below 8 feet above finished floor or in exterior or damp/wet/corrosive locations. Electrical, telephone and communications closets are considered exempt from this restriction and EMT may be installed below 8' AFF in this application only. EMT shall not be installed underground, in slabs on grade, in exterior locations, in hazardous areas, or for circuits operating at more than 600 V.

E. Polyvinyl Chloride (PVC) Non-metallic Conduit

1. PVC may be used for installation in concrete or direct burial applications where not subject to damage. PVC may be used in corrosive environments where specifically allowed on the drawings.
2. PVC shall not be used for penetrations from concrete slabs. Transition to RGS shall be made a minimum of 2" below the slab finished surface, prior to penetration.

3. All connections shall utilize solvent and glue in accordance with the recommendations of the conduit manufacturer.
- F. Miscellaneous Conduit Fittings
1. Expansion/Deflection Fittings: Raceways and conduit buried or secured rigidly on opposite sides of building expansion joints and long runs of exposed conduit subject to expansion and contraction due to variations in temperature shall have expansion fittings. Raceways and conduit shall cross building expansion joints at right angles. Provide separate external copper bonding jumper secured with grounding straps on each end of fitting. Fittings shall safely deflect and/or expand/contract to twice the distance of potential movement.
 2. Sealing Fittings shall be installed wherever conduits pass from warm to cold locations to minimize condensation within the conduit. Sealing fittings shall be installed with RGS penetration of the wall and terminate in a suitably sized junction box.
- G. Flexible Metallic Conduit
1. Provide flexible metallic conduits for connections to electrical equipment and to equipment furnished under other Divisions that are subject to movement, vibration or misalignment and/or where noise transmission must be eliminated or reduced.
 2. Flexible metallic conduit shall be liquid-tight under the following conditions:
 - a. Exterior locations
 - b. Moisture or humidity-laden atmospheres
 - c. Environments where seepage or dripping of water, grease, oil or other fluids is possible. All mechanical equipment rooms and penthouses, kitchens and;
 - d. Corrosive atmospheres
- H. Wireways shall be provided where specifically shown on the drawings or where the group mounting of controllers, disconnects, enclosures, etc warrant the use for elimination of multiple short conduit runs. Wireways shall be provided complete with all required appurtenances necessary to have a totally enclosed system rated for the environment. Wireways shall not be installed in any location where subject to accidental damage or abuse.

3.03 WIRE AND CABLE (600V)

- A. Homerun designations on the drawings are diagrammatic only. Install branch circuits and feeders from the power source to the attachment point as required for a complete system. Provide slack wire for connections to equipment installed by others. Refer to schedules and risers where specific conductor and associated raceway sizes are not indicated on the floor plans.
- B. Connect branch circuit homerun with two or three circuits and common neutral only where specifically shown on the drawings. Circuits with common neutrals shall not be connected to the same phase to ensure cancellation of the return current in the neutral conductor.
- C. Install wires and cable in raceways as specified. All conductor sizing is based upon no greater than three current carrying conductors in a conduit. Installation of up to six circuits (no greater than twelve current carrying conductors) in a single conduit will be allowed if the conductor sizing is increased to the required ampacity to accommodate de-rating factors required by the NEC and NFPA 70.

- D. The minimum wire size shall be #12 unless #14 specifically allowed on the drawings for wiring of controls. Branch circuits longer than 75' for 120 V and 175' for 277 V from panel to last outlet shall be increased a minimum of one size above that shown on the drawings to minimize voltage drop to less than 2%.
- E. Conductors shall be identified at all accessible locations in the following manner:
1. Color code secondary service, feeders and branch circuit conductors as follows:

<u>208/120 Volts</u>	<u>Phase</u>	<u>480/277 Volts</u>
Black	A	Brown
Red	B	Orange
Blue	C	Yellow
White	Neutral	Gray
Green	Ground	Green
 2. Provide nonferrous wire markers, embossed or printed to correspond with the Drawings. Labels shall be permanently marked so that the source of the branch circuit or feeder may be readily identified. Hand written labels are not acceptable. Embossed tag equal to 3M Scotch Code STL-TAG or SCS-TM shall be applied with two miniature cable ties or slipped through both end holes. Heat bonded tag equal to 3M Scotch Code SCS-HB shall be permanently affixed with a heat gun.
- F. Cable
1. Flexible Metal Clad (MC) cable may be used in concealed locations for branch circuit wiring.
 2. Conductor color code shall comply with identification requirements as indicated in this Section.
- G. Splices and Terminations
1. No more than twelve splices of current carrying conductors or six circuits, whichever is greater, shall be allowed in a single enclosure or junction box.
 2. Splices and terminations shall be sized to the specified conductor. The insulation shall be cut back with the appropriate tools such that the conductors are not nicked or damaged.
 3. The compression tool shall be appropriate for the installation of the provided lug or butt splice to ensure pressure necessary for a proper connection is applied.
 4. Terminations shall not be stacked or bent unless specifically listed for the application.

3.04 WIRING DEVICES AND PLATES

- A. Branch circuitry shall be attached to all devices using the attachment screw or utilizing back wiring chambers that utilize screws for compressing the connection on the wire. Quick stab features that do not require a positive screw on attachment for the conductor are not acceptable.
- B. Receptacle devices for other than 20 amp, 120 volt, 2-wire, circuits shall be provided with tags indicating voltage characteristics and circuit number of outlet that match the nameplate or engraving required on the faceplate.
- C. Remove the interconnecting tab for receptacles identified for ½ switched applications such that the top is switch controlled and the bottom is constantly energized.

- D. The drawings specify all dimmer sizes based upon full capacity with no heat removal fins removed for ganged applications. Outlet boxes shall be sized to accommodate the specified dimmer at full rating.
- E. All switches/dimmers illustrated together on drawings shall be installed in ganged configuration with single faceplate unless specifically noted otherwise.
- F. Provide metal barriers to separate switches where voltage between adjacent switches exceeds 300 volts.
- G. Adjust all individual occupancy sensor time delays to 15 minutes and set to “manual on” operation. Sensor sensitivity shall be adjusted for 100% coverage of the associated space and to minimize the false sensing from adjoining areas with doors in their normal position.

3.05 OUTLET BOXES

- A. Outlet and switch boxes shall be securely fastened to metal studs with a minimum of two self-tapping screws. Boxes three gang and greater shall be securely fastened to studs on both sides of the box.
- B. Fasteners for mounting boxes in damp or wet locations shall be stainless steel.
- C. Pressed steel boxes shall not be used for exposed surface mounted locations below 8’0” AFF.
- D. Outlet and switch boxes shall not be installed back to back. Stagger box installation to adjacent stud spaces to maintain sound separation between rooms.
- E. Floor boxes shall not be used above grade level in concrete decking without the approval of the Structural Engineer and Architect. Floor slab installations shall not degrade the required structural or fire rating integrity of the floor deck.

3.06 JUNCTION AND PULL BOXES

- A. Junction box covers shall be accessible. Do not install junction boxes above suspended ceilings except where ceiling is removable or where an access panel is provided.
- B. Pull boxes connected to concealed conduits shall be mounted with covers flush with finished wall or ceiling.
- C. Pull boxes exposed to rain or in damp/wet locations shall be weatherproof NEMA 3R unless noted otherwise on the drawings.
- D. No pull box shall be within 2 feet of another.
- E. Provide clamps, grids, cable ties and other non-conductive or combustible appurtenances to secure cables. No cable shall be unsupported for more than 30". Cables shall not touch or be unsupported within 1” of the box cover.
- F. Each junction and pull box shall have a suitable laminated plastic nameplate with white cut letters identifying power source, voltage and driven load of the associated branch circuits or feeders.
- G. Submit box sizing calculations to confirm all box dimensions are in accordance with code requirements with product data prior to installation.

3.07 SAFETY DISCONNECT SWITCHES

- A. Provide safety disconnects as required and indicated on the drawings. Each motor shall be provided with a local disconnecting means in accordance with code requirements.
- B. Manual motor starters may be used for 120, 208, 240, or 277V, single-phase motors up to 1 HP. Switches shall disconnect all ungrounded conductors. Overload heating elements shall be properly sized and coordinated for the associated motor in accordance with code and manufactures recommendations.
- C. Disconnect switches for all applications with available fault current in excess of 10,000 amperes RMS symmetrical shall be fusible. Fuses shall be Class J, L or R and rejection clips shall be installed in the fuse holders to prohibit the installation of non-current limiting fuses.
- D. Each disconnect switch shall have a suitable laminated plastic nameplate with white cut letters identifying power source, voltage and driven load.

3.08 MOTOR STARTERS

- A. Each starter shall have a suitable laminated plastic nameplate with white cut letters identifying power source, voltage and driven load.
- B. Overload relay heater ratings shall be properly sized and coordinated for the associated motor in accordance with code and manufacturers recommendations.
- C. Field Adjustments
 - 1. The following minimum work shall be performed under the technical direction of the manufacturer's service representative.
 - a. Verify basic operation of starter from control power source.
 - b. Follow the manufacturer's instruction and the contract documents concerning any short circuit device settings, HMCP settings or timing relays. All adjustable settings shall be documented and included in the final O. and M. manual.

3.09 PANELBOARDS

- A. Storage
 - 1. Contractor shall store, protect, and handle products in accordance with recommended practices listed in manufacturer's Installation and Maintenance Manuals. Contractor shall store in a clean, dry space. Cover with heavy canvas or plastic to keep out dirt, water, construction debris, and traffic. Heat enclosures to prevent condensation.
 - 2. Low voltage panelboards shall be located in well-ventilated areas, free from excess humidity, dust and dirt and away from hazardous materials. Ambient temperature of area will be between -30 °C and +25 °C. Indoor locations shall be protected to prevent moisture from entering enclosure.
- B. Installation
 - 1. Provide 1/2" spacers for panelboards mounted at exterior walls below grade to establish 1/2" air space behind panel.
 - 2. Inspect installed panelboard(s) for anchoring, alignment, grounding and physical damage. Clean interiors to remove construction debris, dirt and shipping materials.

3. Check tightness of all electrical connections with calibrated torque wrench. Minimum acceptable values are specified in manufacturer's instructions.
 4. Adjust all circuit breakers and doors for free mechanical operation as described in manufacturer's instructions.
 5. Adjust circuit breaker trip and time delay settings to values determined by the short circuit and coordination study.
 6. Directories shall be typed to indicate loads served by each circuit and mounted in a holder behind a clear protective covering.
- C. Circuit breakers used as a motor disconnecting means, and not in sight of the motor and the driven machinery location, shall be capable of being locked in the open position.
- D. Circuit breakers supplying fire alarm equipment and any others loads noted on the schedules shall be capable of being locked in the ON position. The locking means shall not inhibit the ability of the circuit breaker from performing its protective function.
- E. Field measure all existing enclosures scheduled to receive retrofit interiors and trims. Shop drawings shall reference available space (dimensions).

3.10 STANDBY ELECTRIC GENERATING SYSTEM

A. Installation

1. Placement of the generator shall be the responsibility of the Electrical Contractor . Coordinate placement with the Owner's Representative and obtain all associated permits and permissions necessary for blockage of public way, interference with parking, etc.
2. Fill all fluid levels (including fuel where applicable) to maximum recommended levels by the manufacturer prior to testing and after testing completed.

B. Start-Up and Testing

1. After installation is complete and normal power is available, the manufacturer's local dealer shall perform the following:
 - a. Verify that the equipment has been properly installed.
 - b. Check all auxiliary devices for proper operation, including battery charger, jacket water heater(s), generator space heater, all remote annunciator points, etc.
 - c. Test all alarms and safety shutdown devices for proper operation and annunciation.
 - d. Check all fluid levels.
 - e. Start engine and check for exhaust, oil, fuel leaks, vibrations, etc.
 - f. Verify proper voltage and phase rotation at the transfer switch before connecting to the load.
 - g. Connect the generator to building load and verify that the generator will start and run all designated loads. Testing shall be performed in accordance with NFPA 110 from a "cold start" condition. Each of the following shall be observed and recorded upon opening of the Normal supply circuit breaker to the ATS:

- 1) Time delay on start

- 2) Cranking time until the prime mover starts and runs
- 3) Time required to reach operating speed
- 4) Voltage and frequency overshoot
- 5) Time required to reach steady state conditions with all switches transferred to the emergency position
- 6) Voltage, frequency and current

The system shall be tested under load for a period of two (2) hours. The following readings shall taken at fifteen (15) minute intervals:

- 7) Oil pressure
- 8) Coolant temperature
- 9) Battery charge rate
- 10) AC volts
- 11) AC Amperes- all phases
- 12) Frequency
- 13) Kilowatts
- 14) Kilovolt-amperes
- 15) Ambient Temperature

h. Allow system to cool for 5 minutes.

i. The system shall be tested for a period of two (2) hours with the use of a portable resistive/reactive loadbank at 100% rated load at rated power factor. Load shall be applied upon reaching rated RPM in one step. All data specified in Item g. above shall be recorded for this segment until completion of the two-hour test.

j. The Generator Distributor shall provide a written test report upon completion of testing. Report shall specifically indicate the successful completion of each item referenced above and submit all recordings in a format similar to NFPA 110 tables.

2. All costs associated with the referenced testing , including fuel consumption, load bank rental, temporary cables from the generator to the load bank, etc. shall be included in the Electrical Contractor s bid price.

C. Provide two (2) hours of on-site training to instruct the Owner's personnel in the proper operation and maintenance of the equipment. Review operation and maintenance manuals, parts manuals, and emergency service procedures.

3.11 FIRE ALARM

A. Installation

1. All interconnections shall be installed in accordance with the manufacturer's system wiring diagrams.

2. The firm who holds the existing system maintenance contract shall perform final connections, programming, and testing. The Contractor shall carry all costs associated with final connections, programming and testing.
3. The Contractor shall carry all costs associated with disabling connections to the municipal loop during final connections and testing.
4. Provide UL certification of the installation by a UL certified testing company.
5. A dedicated circuit connection for supplying power to each new building fire alarm panel shall be provided. The power supply shall be equipped with a UL listed locking mechanism and identified with a red "FIRE ALARM CIRCUIT CONTROL" label.
6. Labels
 - a. All new panels, terminal cabinets and annunciators shall be labeled with the Red plastic nameplates in accordance with other sections of this specification.
 - b. New Remote Alarm Indicators and Remote Test and Alarm Stations shall be labeled with the Red plastic nameplates in accordance with other sections of this specification. The label shall indicate the device monitored and associated mechanical equipment tag or room designation where applicable.
 - c. All new detectors shall be labeled with assigned address on both the detector housing and the base with a black on clear typed label equal to Kroy 0.375 Industrial UV. The base address shall be legible without removal of the detector. The detector address shall be concealed when placed into the base.
7. Wiring
 - a. Wiring for the fire alarm system shall not be installed in conduits, junction boxes, or outlet boxes with conductors of lighting and power systems.
 - b. Wiring for the fire alarm system shall be installed in conduit with limitations as outlined in Section 3.02 of this specification. The use of MC cable shall follow the guidelines provided in Section 3.03 of this specification. Exposed plenum rated wire/cable and/or fire alarm low energy cable will not be accepted.
 - c. Minimum wire sizes shall be as follows:
 - 1) Addressable loop wiring shall utilize minimum #16 AWG.
 - 2) Notification appliance circuits shall utilize minimum #14 AWG.
 - 3) Network communications wiring shall be a solid conductor non-shielded #16 twisted pair minimum.
 - d. All junction boxes shall be sprayed red and labeled "Fire Alarm". Conduit couplings shall be spray painted red prior to installation.
 - e. Connections and splices shall be made using screw terminal blocks. No more than one conductor shall be installed under any screw terminal. The uses of wire nut type connectors are prohibited in the system.
 - f. All circuit conductors entering or leaving any mounting box, outlet box enclosure or cabinet shall be labeled in accordance with the wiring diagram. Labeling and color-coding shall be consistent throughout the conductor run.

- g. Wiring within any enclosure shall be readily accessible without removing any component parts.
- h. No more than half loudspeaker/strobes or horn/strobes serving any floor or zone shall be connected to same circuit. Adjacent devices shall be alternately wired between circuits.

8. Detectors

- a. Detectors placement shall be in accordance with NFPA 72 requirements and recommendations.
- b. Detectors shall be at least 12 inches from any part of any lighting fixture and at least 3 feet from diffusers of air handling systems.
- c. Each detector shall be provided with appropriate mounting hardware as required by its mounting location.
- d. Detectors, which mount in free space, shall be mounted directly to the end of the stubbed down rigid conduit drop. Conduit drops shall be firmly secured to minimize detector sway. Where length of conduit drop from ceiling or wall surface exceeds 3 feet, sway bracing shall be provided.
- e. Smoke detectors shall not be installed until the building has been thoroughly cleaned. Dust covers shall be installed over all smoke detectors until final testing commences. All detectors, which indicate reduced sensitivity due to dirty condition, shall be cleaned prior to commencement of final cleaning.
- f. Detectors shall be provided with wire guard cages where subjected to physical abuse, such as in gymnasiums.

B. Testing

- 1. The Contractor shall notify the Owner's Representative 10 business days before the tests are to be conducted. The tests shall be performed in accordance with the approved test procedures in the presence of the Owner's Representative. The Contractor shall furnish all instruments and personnel required for the tests, including the Contractor who holds the existing system maintenance contract.
- 2. Preliminary Tests
 - a. The Contractor shall perform insulation testing (megger), continuity and loop resistance checks on all system conductors to determine that the system is free from grounded, shorted, or open circuits. These tests shall be conducted prior to the installation of fire alarm equipment. Loop resistance measurement shall verify that the loop resistance does not exceed the manufacturers specified limits. Corrections shall be made and the system shall be retested to assure if deficiencies are found.
 - b. Measure air flow with pressure sensor at each duct smoke detector sampling port, at the lowest design air flow of the duct system. Sampling air flow shall exceed smoke detector manufacturer's requirements.
 - c. The Contractor shall perform complete functional and operational performance tests. Testing shall include verification that the circuits and components are electrically supervised and operate as intended. Coordinate final testing with the Elevator and HVAC Contractors where applicable to verify function of all control interfaces such as elevator recall and air handler shutdowns.

- d. A written report shall be submitted detailing the results of the preliminary tests shall accompany the request for Final Acceptance Test. The written Preliminary Test Report shall be submitted with:
 - 1) Copy of FACP printer output verifying proper operation of each device in alarm or trouble, time stamped throughout the testing process.
 - 2) The Operations and Maintenance Manual for the system.
 - 3) The revised record (as-built) drawings.
- e. Reacceptance testing shall be performed in accordance with NFPA 72 14.4.1.2 where applicable (testing of 10% of existing devices not affected by scope of work, etc.).

3. Final Acceptance Test

- a. The Fire Alarm System modifications, other systems and equipment associated with the fire alarm system modifications and new accessory equipment shall be tested in accordance with NFPA 72. Verification of system completion shall be documented with a fully executed copy of the Record of Completion per NFPA 72 Figure 10.18.2.1.1. The listed tests in NFPA 72 Table 14.4.2.2 shall be conducted and documented with an executed copy of Figure 14.6.2.4 as well as manufacturer and job specific procedures to verify that the circuits and components are electrically supervised and operate as intended. The test shall include but shall not be limited to the following:
 - 1) Visual inspection of all new wiring connections.
 - 2) Test of each function of new panels.
 - 3) Test of each circuit into which new devices have been added in both trouble and normal modes.
 - 4) Tests of each circuit associated with new alarm initiating device in both normal and trouble conditions. Open the circuits at each alarm-initiating device to test the wiring supervisory feature.
 - 5) Tests of each new control circuit and device.
 - 6) Tests of each circuit associated with new alarm notification appliance. Open the circuit at each notification appliance to test the wiring supervisory feature. Provide copy of FACP printer output verifying proper operation (alarm, trouble, etc.) for each device with time stamp enabled throughout the testing process.
 - 7) Tests of the primary and secondary power supplies of new panels and associated loss of each.
 - 8) Complete operational tests under emergency power supply.
 - 9) Ground fault monitoring circuit function.
 - 10) Measurement of sound pressure levels in all areas within the scope of this project. Provide background and evacuation signal sound levels on the floor plans submitted with device address and tap settings.

3.12 AUTOMATIC TRANSFER SWITCH

A. Storage

1. Contractor shall store, protect, and handle products in accordance with recommended practices listed in manufacturer's Installation and Maintenance Manuals. Contractor shall store in a clean, dry space. Cover with heavy canvas or plastic to keep out dirt, water, construction debris, and traffic. Heat enclosures to prevent condensation.
2. Automatic transfer switches shall be located in well-ventilated areas, free from excess humidity, dust and dirt and away from hazardous materials. Ambient temperature of area will be between -30 °C and +25 °C. Indoor locations shall be protected to prevent moisture from entering enclosure.

B. Installation

1. Provide 1/2" spacers for automatic transfer switches mounted at exterior walls below grade to establish 1/2" air space behind enclosure.
2. Inspect installed automatic transfer switches for anchoring, alignment, grounding and physical damage. Clean interiors to remove construction debris, dirt and shipping materials.
3. Check tightness of all electrical connections with calibrated torque wrench. Minimum acceptable values are specified in manufacturer's instructions.
4. Each automatic transfer switch shall have laminated plastic nameplates with white cut letters identifying power source, voltage and circuit identified for both inputs and the output.

C. Start-Up and Testing

1. After installation is complete and normal and emergency power is available, the manufacturer's local dealer shall perform the following:
 - a. Verify that the equipment has been properly installed.
 - b. Check all transfer switch functions for proper operation.
 - c. Check all auxiliary device functions for proper operation. Perform integrated testing as outlined in the generator specification
2. Provide two (2) hours of on-site training to instruct the Owner's personnel in the proper operation and maintenance of the equipment. Review operation and maintenance manuals, parts manuals, and emergency service procedures.

3.13 BASIC ACCEPTANCE TESTS

A. General Scope

1. This section covers the required field tests and inspections to assess the suitability for initial energization of electrical power distribution equipment and systems. Failed components shall be replaced and retested for no additional cost to the project.
2. The purpose of this specification is to assure that all tested electrical equipment and systems are operational and within applicable standards and manufacturer's tolerances and that the equipment and systems are installed in accordance with design specifications.
3. All testing shall be performed by the Contractor responsible for the installation of the systems or by an independent testing organization under contract with the Contractor .

4. All equipment utilized for testing shall have a valid calibration sticker. All test reports shall indicate the equipment utilized and its associated calibration due date.
5. Coordinate all required shutdowns with the Owner. Any and all testing required after the Owner has taken occupancy (temporary or permanent) shall be assumed to be conducted during premium time.
6. A written record of all tests and a final report summarizing the findings shall be submitted for approval prior to energizing any electrical power distribution equipment and systems. All equipment shall be left in clean operational condition.

B. Inspection and Test Procedures

The following tests shall be conducted using the noted section of the latest edition of NETA ATS Acceptance Testing Specifications for Electrical Power Distribution Equipment Systems as a reference:

1. Panelboard Assemblies – Visually inspect the equipment inside and out, check attachment to wall or floor, verify bus joint tightness, exercise all active components and perform continuity testing and megger phase to phase, neutral and ground. Minimum resistance shall be 100 megohms when 480V equipment tested at 1000VDC or 25 megohms when 208V equipment tested at 500VDC. Tabulate readings for each test. NETA ATS-7.1
2. Low Voltage Cables - All feeders illustrated on the one line diagram shall be inspected and tested in accordance with the referenced standard. Visually inspect cables for physical damage, color code and proper termination. Check continuity for proper labeling and megger for insulation resistance. Megger test voltage shall be 1000VDC for 1 minute with no values less than 50 megohms. Tabulate readings for each feeder. NETA ATS-7.3

END OF SECTION